

Nordic Ecolabelling of
Cleaning products



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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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What is a Nordic Swan Ecolabelled cleaning product?

Nordic Swan Ecolabelled cleaning products are amongst the least environmentally harmful products within their category, the substances they contain have the lowest impact on the environment possible, and strict requirements are imposed with regard to the chemicals used in the products.

The environmental requirements include strict requirements as to the content of environmentally harmful substances and substances not readily degradable in aquatic environments.

Account is also taken of health factors; for example the content of fragrance and other allergenic substances is restricted.

The products are discharged into water after use. Properties such as biodegradability, bioaccumuability and toxicity to aquatic organisms are accordingly key considerations with regard to all constituent components.

The effect of the products on the environment will also depend on the way in which they are used. Accordingly, the consumer must be provided with dosage information. The required performance testing must demonstrate that the specified dose of the product has a cleaning effect that is satisfactory. Furthermore, packaging requirements are imposed in order to reduce the quantity of packaging used and to increase recycling and re-use.

Nordic Swan Ecolabelled cleaning products:

- Are among the best in class with regard to health and the environment.
- Offer excellent cleaning performance and are long lasting.
- Has a smart packaging which means less transport.

Why choose the Nordic Swan Ecolabel?

- Manufacturers of cleaning products can use the Nordic Swan Ecolabel trademark in their marketing. The Nordic Swan Ecolabel enjoys considerable renown and credibility within the Nordic countries.
- The Nordic Swan Ecolabel is a cost-effective and simple way of communicating the manufacturers' environmental work and commitment to customers and suppliers.
- Environmental issues are complex and it can take time to understand specific problems. The Nordic Ecolabelling process can be used to as an aid to understanding the issues.
- Nordic Ecolabelling is not only about environmental issues, but also about quality, since these two parameters cannot be separated. This means that a Nordic Swan Ecolabel licence can also be viewed as a mark of quality. 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 product group encompasses cleaning products intended for indoor, general and regular cleaning of the following areas:

- fixed surfaces (floors, walls, ceilings, doors, tiles and windows (windowcleaners for both indoor and outdoor are included))
- kitchen equipment (for example windows, work surfaces, kitchen cabinets, stoves)
- sanitary installations (toilets, baths, showers, wash basins, cabinets).
- Wash polish and wash-and-wax care products are also included in the product group

The types of cleaning products to which the requirements apply

Professional products (products are considered professional if more than 80% of sales are to the professional market) and/or consumer products can be labelled. Product categories are listed below:

Product categories

Cleaning products containing microorganisms which are used to clean fixed surfaces (floors, walls etc.), either as concentrates or as RTU-products (Ready to use) for the professional, market are included in the product group. Spray products (or products marketed to be used with a spray application) containing microorganisms are not included in the product group.

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 flooring, walls, ceilings, windows, kitchen work surfaces, tiles, sanitary porcelain (toilets and bathtubs) and showers. Tablets/capsules for toilets are included in this category.

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

RTU (Ready-to-use) WC professional: Professional toilet cleaners that are pre-diluted and ready for use straight from the package. This category only includes products for use on toilets and excludes cleaners for other sanitary porcelain and bathroom cleaners.

RTU (Ready-to-use) 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 that are designed for the consumer market. This category contains products for all the aforementioned surfaces in the home, such as flooring, walls, ceilings, windows, kitchen work surfaces, sanitary porcelain and showers. Tablets/capsules for toilets are included in this category.

RTU (Ready-to-use) WC, consumer: Consumer toilet cleaners that are pre-diluted and ready for use straight from the package. This category only includes products

for use on toilets and excludes cleaners for other sanitary porcelain and bathroom cleaners.

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

RTU-spray-products refer to products with a mechanical spreading/spray function. Foam products are considered as RTU-products, but not as spray products and need to fulfil RTU requirements.

Wash polish/wash-and-wax: combined cleaning and polish improvers. They contain care products: film-forming components such as polymers, resin and/or wax. Wash-and-wax care products qualify as maintenance products

**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 local cleaning.*

Method of use

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 toilet and bathroom cleaner (walls and floor) must fulfil the requirements of each applicable category.

Products that do not qualify for ecolabelling as cleaning products

Cleaning products intended for special cleaning purposes cannot be ecolabelled in accordance with these criteria. This includes products intended solely for the purpose of:

- calcium removal
- unblocking blockages, cleaning drains
- restricting or preventing biological growth (algae, fungus, bacteria)
- total or partial disinfection
- continuous cleaning, e.g. fragrance block for cleaning WCs
- cleaning products for refrigerated rooms

Wipes containing cleaning agents are not eligible for ecolabelling under the criteria for cleaning products or any other current Nordic Ecolabelling criteria. In the event of dispute, Nordic Ecolabelling will determine which criteria a product may be ecolabelled under.

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 R (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:

- ☒ Submit
-  The 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 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 Environmental requirements

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 % 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.

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The weight of tablets and capsules in grams per litre of in-use solution is used for calculations. For WC tablets, calculations are based on grams per litre of water, i.e. one tablet for one litre of water for the calculation of environmentally hazardous substances (R10), CDV (R11) and biodegradability (R12).

The chemical requirements make reference to the detergents ingredient database list (DID list), which is described in more detail in Appendix 2. The DID list contains the most commonly used ingredients in laundry, dishwasher and cleaning detergents. Guidelines are provided for substances not included in the DID-list (DID-list part B) as how to calculate or extrapolate relevant data. The DID-list can be found on the webpages of the Nordic Ecolabelling secretariats. The DID-list adopted in January 2007, or later version, shall be used for calculating environmental requirements.

Information on requirements pertinent to analysis laboratories can be found in Appendix 2.

1.1 Description of the product

R1 Description of the product

Detailed information must be supplied on the cleaning products for which a Nordic Swan Ecolabel is sought. The following information must be submitted:

- Description of the product regarding the need of dilution.
- Description of the area of use of the product in accordance with “What products are eligible for a Nordic Swan Ecolabel”.
- Is the product designed for the professional or the consumer market?*

** A product is considered to be professional if more than 80% of the sales go to the professional market. If Nordic Ecolabelling considers that it is uncertain if a product is a consumer or a professional product the applicant must submit sales statistics or similar that shows where the product is sold.*

- ☒ Product label and/or technical data sheet describing the area of use of the product and possible need for dilution (see also R20).
- ☒ Documentation specifying the market for which the product is designed (consumer or professional). Marketing material, product information or similar for each country in which the product is sold.

R2 Information on formulation/recipe

Applicants must provide detailed information on the formulation of the cleaning product and enclose a safety data sheet for each ingredient. Information on the formulation must include:

- Trade name
- Chemical name
- Proportion (dry and wet sample)
- CAS no. for each ingredient (if an ingredient comprises several substances, this must be stated) and/or EINECS number for each ingredient (if available).
- Function of each ingredient.
- DID number for substances included on the DID list.
- Health and environmental classification.

The DID number is the number assigned to the ingredient on the DID list, which is used for the evaluation of chemical requirements. The DID-list is available from Nordic Ecolabelling. See page 2 for addresses.

- ☒ Comprehensive recipe for the product as stipulated by the requirement.
- ☒ Safety data sheet for each ingredient in accordance with REACH chemical directive (1907/2006) appendix II.

1.2 Prohibited or limited constituent substances and mixtures

R3 Classification of the product

Products must not be classified according to the CLP Regulation (EC) No 1272/2008 with amendments as specified in Table 1

Table 1. Product classification

Classification	Hazard category and statement
Hazard class	CLP Regulation 1272/2008
Hazardous to the aquatic environment	Category Acute 1 H400; Category Chronic 1 H410; Category Chronic 2 H411; Category Chronic 3 H412; Category Chronic 4 H413
Acute toxicity	Category 1 – 4; H300, H301, H302 H310, H311, H312 H330, H331, H332 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.
Specific target organ toxicity (STOT) with single or repeated exposure	STOT SE, Category 1 with H370, Category 2 with H371 STOT RE, Category 1 with H372, Category 2 with H373 Spray products (consumer and professional): STOT SE with H335, Eye Dam.1 with H318
Aspiration hazard	Category 1 with H304
Respiratory or skin sensitizing	Category 1, 1A or 1B with H334, Category 1, 1A or 1B with H317 or with following warning included on the package: "Contains (name of sensitising substance). May cause an allergic reaction."
Skin Corrosion/ irritation	Skin Corr.1B with H314, Skin Corr.1A with H314. Exceptions: Professional products where classification is due to pH. WC-products for consumers where the classification is due to pH.
Carcinogenic	Carc 1A/1B/2 with H350, H350i or H351
Mutagenic	Mut 1A/B/2 with H340, H341
Reproductive toxic	Repr. 1A/1B/2 with H360, H361, H362

Note that the producer is responsible for classification.

- ☒ Safety data sheet for the product in accordance with REACH chemical directive (1907/2006) appendix II.
- ☒ Description of the design of the packaging of professional products classified as H332, H312 and/or H302 demonstrating that the user does not come into contact with the product. Technical description and instructions demonstrating how the user avoids contact with the product.
- ☒ Documentation that demonstrates that the product (professional products and consumer WC products) is classified as corrosive due to its pH, permitting exemption for H314 skin corr. 1B classification.

R4 CMR substances

The cleaning product must not contain substances that are or may decompose into substances that are carcinogenic (Carc), mutagenic (Mut) or toxic to reproduction (Rep) with the following hazard categories or risk phrase, or combinations of these (see Table 2):

Table 2 Classification of constituent substances

Hazard class	Hazard category and statement CLP-Regulation 1272/2008
Carcinogenic	Carc. 1A or 1B; H350 Carc. 1A or 1B; H350i Carc. 2; H351*
Mutagenic	Muta. 1A or 1B; H340 Muta. 2; H341
Reproductive toxic	Repr. 1A or 1B; H360F Repr. 1A or 1B; H360D Repr. 2; H361f Repr. 2; H361d Lact, H362

* MGDA and GLDA complexing agents may contain NTA contaminants in concentrations below 1.0%, so long as the concentration of NTA in the cleaning product is lower than 0.1%.

- ☒ Cleaning products: Duly completed and signed declaration of conformity with product requirements (Appendix 3 or equivalent) and ingredient requirements (Appendix 4 or equivalent).
- ☒ Wash polish/wash-and-wax: Duly completed and signed declaration of conformity with product requirements (Appendix 8 or equivalent) and ingredient requirements (Appendix 9 or equivalent).
- ☒ Safety data sheet for each ingredient in accordance with REACH chemical directive (1907/2006) appendix II (see R2).

R5 Sensitising substances (does not apply for wash polish/wash-and-wax)

Ingredients must not be classified as sensitising/allergenic with the following hazard statements:

- H334
- H317
- Any combination of these hazard statements.

The following substances are exempt from the above requirements, except in spray products:

- Enzymes (including stabilisers and preservatives in enzyme materials) and microorganisms may be included if in liquid form or encapsulated granulate form.
- Fragrances may be included in the final product, see requirements R9 Fragrances.
- <0.01% by weight preservatives classified as resp sens 1, 1a or 1b H334 and/or skin sens 1, 1a or 1b H317 may be included in the end product. See requirement R7 for further preservative requirements.

MIT (2682-20-4) is deemed to be classified as sensitising.

For spray products* and refills for spray products*, the following applies:

- Consumer products: Fragrance may be included in the end product. Professional products: Fragrance may not be included in the end product, see requirement R9 Fragrance.
- No allergenic preservatives may be included.

**Foam products are not considered as spray products.*

- ☒ Duly completed and signed declaration that sensitising substances are not included in the product. Use Appendix 3 (manufacturer's declaration) or

equivalent. Duly completed and signed declaration that ingredients do not contain sensitising substances. Use Appendix 4 (declaration by supplier of raw materials) or equivalent.

- ☒ Safety data sheet for each ingredient in accordance with REACH chemical directive (1907/2006) appendix II (see R2).
- ☒ Documentation of the concentration of the preservatives classified as sensitising.
- ☒ Safety data sheet or equivalent demonstrating that enzymes/microorganisms are liquid or dust-free granulate form.

R6 Substances that must not be present in the product

a) The following substances/groups are prohibited from use in the cleaning product and must not be actively added to ingredients:

- alkylphenoethoxylates (APEOs) and/or APEO derivatives (APD)
- reactive chloro-compounds such as sodium hypochloride
- chloro-organic compounds
- quaternary ammonium compounds that are not readily degradable
- benzalconiumchloride (CAS 8001-54-5)
- EDTA* (ethylene diamine tetraacetate) and its salts
- DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)
- LAS (linear alkylbenzene sulfonates)
- Phosphorous*/**
- nanomaterials/nanoparticles***
- perfluorinated substances and polyperfluorinated alkylated substances (PFAS)
- Methylidibromo Glutaronitrile (MG CAS 35691-65-7)
- Nitromusks and polycyclic musks
- Substances with potential for endocrine disruption of Category 1 or 2 in EU's priority list of substances for further evaluation of their role in endocrine disruption. The report can be read in full at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (from Appendix L, page 238)
- Substances that have been evaluated in the EU to be PBT (Persistent, bioaccumulable and toxic) or vPvB (very persistent and very bioaccumulable) in accordance with Annex XIII of REACH. See e.g. <http://esis.jrc.ec.europa.eu/index.php?PGM=pbt>
- Substances of very high concern according to REACH article 59 http://echa.europa.eu/chem_data/candidate_list_en.asp.

* Solid soap products (e.g. soap flakes) may as a total contain 0.06% EDTA and phosphonates.

** Note the national legislations concerning phosphorous in the Nordic countries. In Norway phosphorus is regulated in «Forskrift om begrensning i bruk av helse- og miljøfarlige kjemikalier og andre produkter (produktforskriften)», §2- 12 and § 2-14.

*** Nanomaterials/particles: "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, Ag and laponite with particles in nanosize in concentration over 1%. Polymer emulsions are not considered nanomaterials.

Note the definition of constituent substance and impurity in Section 1 of the environmental requirements.



Duly completed and signed declarations that the above substances cannot be found in the final product (Appendix 3 or equivalent) and are not actively added to ingredients (Appendix 4 or equivalent).

b) The following substances/groups are prohibited from use in the final wash polish/wash-and-wax product and must not be actively added to ingredients:

- Phthalates
- APEO (alkylphenolethoxylates) and derivatives thereof
- Halogenated and aromatic solvents
- Complexing agents EDTA (ethylene diamine tetraacetic acid)
- DTPA (diethylene triamine pentaacetate CAS 67-43-6)
- Phosphonates
- Phosphorus > 0,20 w/w%
- Perfume
- Dyestuffs and pigments
- VOC < 0.5 w/w% (defined under 1999/13/EC as VOCs, i.e. substances that, at 20°C, have a vapour pressure > 0.010 kPa.)
- Substances judged to be "Substances of very high concern" (SVHC), and that are on the candidate list
http://echa.europa.eu/chem_data/candidate_list_en.asp.
- Nanoparticles (from nanomaterials)

The definition of nanomaterials follows the European Commission's definition of nanomaterials, from 18 October 2011, with the exception of the limit for the number size distribution of particles that are reduced to 1%: Nanomaterial: "a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 1% of the particles in the number size distribution, one or more external dimensions are in the size range 1-100 nm".

Polymer emulsions are not considered to be nanomaterials.



Duly completed and signed declarations that the above substances cannot be found in the final product (Appendix 8 or equivalent) and are not actively added to ingredients (Appendix 9 or equivalent).

R7 Preservatives

- a) Preservatives that can be found in the product or in ingredients must not be bioaccumulating. Preservatives are considered not bioaccumulable if BCF < 500 or logK_{ow} < 4.0. If both BCF and logK_{ow} values are available, the highest recorded BCF value shall be used.
- b) The concentration of preservatives shall be optimised to the volume of the product. A Challenge test or equivalent test shall be used to demonstrate this.
- c) Preservatives are only permitted to preserve the product or an ingredient. Preservatives may not be added to produce a disinfecting or anti-bacterial effect.



Documentation of BCF or logK_{ow} (e.g. safety data sheet, see R2).

- ☒ Appendix 3 and appendix 4.
- ☒ Test report of conducted Challenge test or equivalent demonstrating that an optimal concentration of preservatives is used in the product. See Appendix 2 for requirements on test laboratories and information on challenge tests.
- ☒ Duly completed and signed declaration that preservatives are only added to preserve the product or ingredient (Appendix 3 or 4 or equivalent documentation).

R8 Colouring agents in cleaning products

Colouring agents that can be found in the cleaning product or in ingredients must not be bioaccumulating. A colouring agent is not considered bioaccumulating if $BCF < 500$ or $\log K_{ow} < 4.0$. If both BCF and $\log K_{ow}$ values are available, the highest recorded BCF value shall be used. Colouring agents approved for foodstuffs may be accepted.

- ☒ Documentation of the colouring agent's BCF or $\log K_{ow}$ (e.g. safety data sheet, see R2) or specification of E-number.
- ☒ Appendix 3 and Appendix 4.

R9 Fragrances in cleaning products

The requirement applies to all fragrance substances, including fragrance substances in plant extracts.

- a) The constituent substances that are added to the cleaning product as fragrances must be manufactured and/or handled in accordance with the guidelines of the International Fragrance Association (IFRA). The manufacturer must follow the requirements stipulated by IFRA standards with respect to prohibited use, limited use and material purity.
- b) Fragrance substances subject to declaration in accordance with Regulation (EC) No 648/2004 on detergents with amendments (see also Appendix 7) may not be present in a cleaning product in concentrations greater than 100 ppm ($>0.010\%$) per substance (n/a to spray products, see requirement d).
- c) Fragrance substances that are classified as H317/R43 and/or H334/R42 must not be present at concentrations above 100 ppm ($>0.010\%$) per substance in a cleaning product (n/a to spray products, see requirement d).
- d) Sprays: Fragrance substances subject to declaration in accordance with Regulation (EC) No 648/2004 on detergents with amendments (see also Appendix 7) and/or that are classified as H317/R43 and/or H334/R42 may not be present in a cleaning product in concentrations greater than 50 ppm* ($>0.0050\%$) per substance.
- e) Fragrances must no longer be included in professional** spray cleaning products or their refills.

* Refills for spray products may contain the aforementioned substances in concentrations up to 0.050% by weight (500 ppm) provided that the specified dilution means that the in-use solution has a concentration of 0.0050% by weight (50 ppm) or lower.

** Products for professional use here means products which are marketed for use in professional settings, such as institutions, catering kitchens, restaurants and in the public sector.

For products sold to both professionals and consumers, the product is considered a professional product if the proportion sold to professionals is 80 % or higher. In case of doubt whether a product is professional or consumer, Nordic Ecolabelling may require documentation which confirms where the product is to be sold.

- ☒ Duly completed and signed declaration from the manufacturer of the cleaning product that demonstrates that fragrances are handled and/or manufactured according to IFRA guidelines, as stipulated by requirement R9a. Appendix 3 and 4 can be used.
- ☒ Duly completed and signed declaration from the fragrance manufacturer as to the content of applicable fragrances (e.g. analysis certificate for the 26 allergens and information on substances classified as H3342 and/or H317) and any plant extracts. Appendix 4 or equivalent may be used.
- ☒ Calculation of the quantity of the 26 allergens and substances classified as H334 and/or H317) in the end product.
- ☒ Recipe according to requirement R2 that demonstrates that no raw materials have been added with the function of fragrance in professional spray products.

R10 Long-term environmental effects

- The use of substances classified with any of the hazard statements H410, H411 or H412 is limited as follows in cleaning products:

Requirement: $FV < LV$

FV (factor value) = $100 * C_{H410} + 10 * C_{H411} + C_{H412}$ in gram / litre in-use solution

Where:

LV = limit value

FV = factor value

$C_{H410/R50/53}$ = concentration of substances classified as H410 in gram/litre in-use solution

$C_{H411/R51/53}$ = concentration of substances classified as H411 in gram/litre in-use solution

$C_{H412/R52/53}$ = concentration of substances classified as H412 in gram/litre in-use solution

Table 3: Limit values (LV) for environmentally hazardous substances for each category

Market	Category	Limit values (LV) (g/l in-use solution)
Consumer	Concentrated products	0,020
Consumer	Ready-To-Use –products, WC	0,50
Consumer	Ready-To-Use –products, other areas	0,30
Consumer and Professional	Ready-To-Use –products, windows	0,30
Professional	Concentrated products	0,0020
Professional	Ready-To-Use –products, WC	0,10
Professional	Ready-To-Use –products, other areas	0,10

- For wash polish/wash-and-wax products applies following: The total quantity of chemical substances that meet the criteria for classification as environmentally hazardous with H400, H410, H411, H412 or H413 present in the product must not exceed 100 mg/g active content. High molecular weight substances (molecular weight > 700, maximum diameter > 1.17 nm and a maximum molecule length > 4.3 nm) are exempted from the requirement, if they have an aquatic toxicity $EC50/LC50 > 100$ mg/l.

If no details of a substance's environmental properties are available it is considered a "worst case" environmental hazard with classification H410 .

Surfactants classified with H412 are exempted from the requirement, provided that they are readily biodegradable* and anaerobically degradable**.

* In accordance to the DID-list. If the substance is not on the DID-list documentation must be according to test method No. 301 A-F or No. 310 in OECD guidelines for testing of chemicals or other equivalent test methods.

** In accordance to the DID-list. If the substance is not on the DID-list documentation must be according to ISO 11734, ECETOC No. 28 (June 1988) or other equivalent test methods, where a minimum of 60% degradability under anaerobic conditions is achieved.

- ☒ Declaration of surfactants that are exempted from the requirement (quantity, classification, degradability).
- ☒ Summary of the product's content in percentage by weight of substances classified as H410, H411 and H412.
- ☒ Appendix 3 and Appendix 4 or Appendix 8 and Appendix 9.
- ☒ Calculations according to the specified formula demonstrating the fulfilment of the requirement.
- ☒ Safety data sheet for each constituent ingredient specifying its environmental hazard (acute aquatic toxicity, biodegradability and/or bioaccumulating characteristics) as for R2.

R11 The critical dilution volume (CDV)

The critical dilution volume (CDV) shall be calculated for all chemicals* contained in the cleaning product. CDV is a theoretical value that takes into regard each substance's toxicity and biodegradability.

* Microorganisms are exempted from this requirement

The product's critical dilution volume is calculated at the recommended dosage that is stated on the packaging.

The product's CDV must not exceed the following limit values for CDV_{chronic} :

Table 4: Threshold values CDV_{chronic} .

Category	CDV_{chronic}
Concentrated, consumer	10500
RTU WC, consumer*	600000
RTU other, consumer	700000
RTU window, consumer and professional	75000
Concentrated professional	9500
RTU WC, professional**	700000
RTU, professional	450000
Wash polish/wash-and-wax products	8000***

**The water in the toilet is not included as a part of the in-use solution.

*** High molecular weight substances (molecular weight > 700, maximum diameter > 1.17 nm and a maximum molecule length > 4.3 nm) are not included in the calculation of CDV.

CDV is calculated using the formulas shown below. CDV must be calculated for all substances in the product:

$$CDV_{\text{chronic}} = \sum CDV_i = \sum (\text{dose}_i \times DF_i \times 1000 / TF_{\text{chronic}})$$

dose_i = the ingoing quantity of the individual substance i (gram / liter in-use solution)

DF_i = degradation factor for substance i as shown on the DID-list

TF_{chronic} = chronic toxicity factor as shown in the DID-list. If TF_{chronic} is missing TF_{acute} can be used

- ☒ Calculation of CDV_{chronic} for the product.
- ☒ Reference to the DID-list, dated 2007 or later. If the substance is not contained in the DID-list, the parameters must be calculated using the guidelines contained in part B of the DID-list and the associated documentation must be enclosed.

R12 Content of aerobic and/or anaerobic non-biodegradable organic material

The product's total content of aerobic (aNBO) non-biodegradable organic materials must not exceed the limits stated below per litre of in-use solution. The product's total content of anaerobic (anNBO) non-biodegradable organic materials must not exceed the limits stated below per litre of in-use solution.

aNBO and anNBO values are calculated for all organic substances in the detergent.

Note that all surfactants must be aerobically and anaerobically biodegradable according to R13. See also the exemptions from the requirement for anaerobic biodegradability of substances which are not surfactants (Appendix 2, Point 6 Anaerobic biodegradability).

Table 5. Threshold values for aNBO and anNBO

Market /category	aNBO (g/litre in-use solution)	anNBO (g/litre in-use solution)
Concentrated, consumer	0.100	0.100
RTU WC, consumer*	2.10	6.00
RTU other, consumer	2.00	2.00
RTU window, consumer and professional	2.00	2.00
Concentrated professional	0.045	0.250
RTU WC, professional*	2.25	20.0
RTU, professional	0.70	0.70

Note that the following exceptions apply:

- Cumensulphonate (DID 139) – the data on the DID list does not agree with that published under the HERA project. The following data on cumensulphonates can be used for application: aNBO = R and DF = 0.05. Since BCF = 1.41 and $\log K_{ow} = -2.7$, cumensulphonates can in accordance with Appendix 2 be exempted from the calculation of anNBO.
- Iminodisuccinate (DID 148) can be excluded from the calculation of anNBO.
- Wash polish/wash-and-wax products are exempted

- ☒ Calculation of aNBO and anNBO for the product.
- ☒ Reference to the DID-list, dated 2007 or later. If the substance is not contained in the DID-list, the parameters must be calculated using the guidelines contained in part B of the DID-list and the associated documentation must be enclosed.

R13 Surfactants

- a) All surfactants must be readily aerobically biodegradable
- b) All surfactants must be anaerobically biodegradable

- ☒ Reference to the DID list dated 2007 or later. If the DID list does not contain relevant data, data can be taken from the material safety data sheets provided that the data are reliable and that test methods comply with Appendix 2. Section B of the DID list shows how the various factors are calculated. It is also permitted to refer to analogous arguments as long as these are carried out by a competent third party. It is also permitted to refer to relevant literature that has been scientifically evaluated.

R14 Microorganisms

- a) Products containing microorganisms to be eligible for Nordic 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 16649-3:2005
 - Streptococcus (Enterococcus), test method ISO 21528-1:2004
 - Staphylococcus aureus, test method ISO 6888-1
 - Bacillus cereus, test method ISO 7932:2004 or ISO 21871
 - 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).
 - The microorganisms are not resistant to the following types of antibiotics:
 - Aminoglycosides
 - Macrolides
 - Beta lactam
 - Tetracyclines
 - Fluoroquinolones or other quinolonesaccording 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 where 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, starch, 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.

2 Effectiveness

This requirement stipulates that the performance of the product must be equal or better than the performance of a reference product. Professional products can be tested using a laboratory test (R14) or user test (R15). Consumer products must be tested by a laboratory.

R15 Performance test – Laboratory test

- a) The product must through laboratory testing demonstrate equal or superior cleaning performance to a reference product within 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 shall be tested against a professional product.

The test shall demonstrate the ability to remove soil in accordance with the method described in Appendix 6.

The test shall be performed by a laboratory complying with Appendix 2 (item 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.
- c) For wash polish/wash-and-wax care products applies:
 - Professional use:
 - Documentation of laboratory testing (Appendix 6)
 - Consumer products:

Documentation of laboratory testing (Appendix 6).

Wash polish/wash-and-wax care products for consumers that pass the user test for professional products need not undergo additional effectiveness testing.

Products approved for professional use, and which are to be marketed as consumer products, need not undergo additional effectiveness testing.

- ☒ Alternative a: Test report containing data on dosage, 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 Appendix 2 (item 1B).
- ☒ Alternative b: Description of how the EU Ecolabel test has been performed and complete results from the test.
- ☒ Alternative c: Documentation in accordance with Appendix 6

R16 Performance test – User test (professional products only)

- 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 shall be judged in three areas:

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

- 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.
- c) For wash polish/wash-and-wax care products applies a documentation of user testing (Appendix 5d).

- ☒ Alternative a: Description of how the test is performed.
- ☒ Alternative a: All fully completed questionnaires (Appendix 5a, b or c) and a summary of responses (Appendix 5d).
- ☒ Alternative b: Description of how the EU Ecolabel test has been performed and complete results from the test.
- ☒ Alternative c: Description of how the test is performed and documentation in accordance with Appendix 5d

3 Packaging and user instructions

R17 Packaging – plastic

Plastic packaging (including caps, lids and pumps) and labels containing PVC or plastic based on other types of chlorinated materials must not be used.

- ☒ Data sheet or declaration specifying the plastics that are used (including labels and caps). Appendix 3 or equivalent declaration may be used.

R18 DIN labelling

To facilitate identification for recycling, plastic bottles that are used as packaging must be marked in accordance with DIN 6120, section 2, ISO 11469:2000 or equivalent standard. Caps, lids and pumps are exempt from this requirement.



Documentation of primary packaging demonstrating that marking complies with DIN 6120 or equivalent marking regulations. Images of the product marking or data sheet specifying the marking. Marking may also be specified on the submitted label.

R19 Weight-utility ratio (WUR)

WUR is a measure of the amount of packaging that is used to deliver a quantity of the product with a predetermined benefit.

The weight utility ratio (gram packaging/litre solution or active content) of the primary packaging is as follows:

- RTU- cleaning products:

$$WUR_{RTU} = ((W_i + U_i) / (D_i * t_i)) \leq 200.0 \text{ gram packaging/litre in-use solution}$$

- Concentrated cleaning products:

$$WUR_{CONCENTRATED} = ((W_i + U_i) / (D_i * t_i)) \leq 1.20 \text{ gram packaging/litre in-use solution}$$

W_i = Weight of the primary packaging component (i) in grams including cap, dispenser or similar + any refills (sold per original bottle) in grams including cap, dispenser or similar.

U_i = weight (g) of non-recycled (virgin) material in packaging component (i) in gram.

If the proportion of recycled material in the packaging component is 0%,
 $N_i = W_i$.

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

D_i = Number of doses in the primary packaging component (i), For ready to use products, D_i = product volume (in litres).

If a primary packaging component is packed with a refill D is the sum of the functional doses in both packaging (such as W is sum of the weight of both packaging (see description of W)).

t_i = Reuse factor. I.e. the number of times that the packaging component (i) is reused (by sale of refills).

$t = 1$ if the packaging is not reused for the same function (disposable packaging).

$t > 1$ may only be used if supported by documentation demonstrating that the packaging is reused for the same function.

- Wash polish/wash-and-wax care products

$$WUR = \text{SUM} ((W_i + U_i)/D_i) < X$$

where $X = 2.5 \text{ g/g active content for consumer products and}$

$X = 1.0 \text{ g/g active content for professional products}$

W_i = The weight of the packaging component i (grams)

U_i = The weight of non-recycled material in the packaging component i (grams)

D_i = The product's content of active components (grams)

- ☒ Declaration/documentation from the packaging manufacturer regarding material type of packaging components (e.g. lid, spray nozzle, bottle and label).
- ☒ Calculation of the weight-to-utility ratio (WUR) and documentation regarding reuse of the packaging, if applicable.
- ☒ Declaration from the packaging manufacture regarding the content of recycled materials (if recycled materials are used).
- ☒ If $t > 1$: documentation demonstrating how many times the packaging is reused for the same function (sales statistics or equal documentation).

R20 Take-back system

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

R21 Information text and use and dosing instruction

- The information text on the packaging must comply with the regulation 648/2004/EC and 907/2006/EC on detergents.
- Clear user instruction as to use of the product.
- Clear instruction regarding area of application
- If the product requires dilution before use, the recommended dose at a normal level of soiling/normal use must be stated clearly on the packaging.
- In the case of consumer products, for example, the dose may be shown as x number of ml equivalent to y capsul per z number litres of water.
- In the case of products intended for use by professional users, the dose may be specified as, for example, x number of ml equivalent to y strokes of the pump or number of lines on the dosing equipment per z litres of water. The information sheet or technical datasheet must state the recommended dispensing device (e.g. pump, graduated cylinder, pipette or similar).
- ☒ Label, draft of the label or copy of the information (information text and user instructions) on the primary packaging and/or technical product data sheet (if there is one). The information on the label and/or product data sheet shall be provided in the local language.

4 Quality and regulatory requirements

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

If the environmental management system of the cleaning product manufacturer is certified to ISO 14 001 or EMAS, where the following procedures are applied, it is sufficient if the accredited auditor certifies that the requirements are implemented.

R22 Laws and regulations

The licence holder must ensure that the applicable provisions governing safety, the working environment, environmental legislation and plant-specific conditions/licences are observed at all plants producing the Nordic Swan Ecolabelled products and for all Nordic Swan Ecolabelled products.

No documentation is required, but Nordic Ecolabelling may revoke the licence if the requirement is not fulfilled.


R23 Responsibility for the Nordic Ecolabelling requirements

The company shall appoint a contact person responsible for ensuring the fulfilment of Nordic Ecolabelling requirements.

- ☒ A chart of the company's organizational structure detailing the responsible contacts.

R24 Documentation

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

-  On-site inspection.

R25 Quality of the cleaning products

The licensee must guarantee the quality during production of the Nordic Swan Ecolabelled cleaning product for the validity period of the licence.

- ☒ Procedures for recording and, where necessary, dealing with claims and complaints regarding the quality of the Nordic Swan Ecolabelled cleaning product.

R26 Planned changed and unplanned non-conformities

Written notice must be given to Nordic Ecolabelling of planned changes and unforeseen deviations that have a bearing on Nordic Ecolabelling requirements.

- ☒ Procedures detailing how planned changes are handled.
- ☒ Procedures detailing how unplanned non-conformities are handled.

R27 Traceability

The licensee must have a traceability system for the production of the Nordic Swan Ecolabelled cleaning product.

- ☒ Description of/procedures for the fulfilment of the requirement.

R28 Marketing

The requirement is removed as decided by the Board of Directors 17 November 2014.

Regulations for the Nordic Ecolabelling of products

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

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

Follow-up inspections

Nordic Ecolabelling may check that the product continues to comply with the Nordic Ecolabelling requirements after a licence has been granted. This might, for example, take the form of a visit to the site or random sampling.

If the licence proves not to comply with the requirements, the licence may be withdrawn.

Random samples may also be taken from retail outlets and these may be analysed by an impartial laboratory. If the requirements are not fulfilled, Nordic Ecolabelling may require the licence holder to pay the cost of analysis.

The duration of the licence

Nordic Ecolabelling adopted version 5 of the criteria for cleaning products on 13 March 2013 and they will remain in force up to and including 31 March 2017.

At the secretariat managers' meeting on 12 November 2013 Nordic Ecolabelling decided to clarify that foam products are not to be considered as spray products in section "What products are eligible for a Nordic Ecolabel?" and in R5. The new version is called 5.1.

At the Nordic Ecolabelling board meeting on 11 June 2014 it was decided to make it possible to Ecolabel cleaning products for the professional market containing microorganisms. When this has been done there has been changes made to requirements R5 and appendix 3, 4 and 5 and inclusion of a new requirement, R14 about microorganisms. Editorial adjustments of requirements R12 and R19 have been done at the same time. The new version is called 5.2.

Nordic Ecolabelling's Criteria Group decided per capsulam on 30 March 2016 to prolong the criteria with 9 months. On 17 November 2014 the Board of Directors decided to remove requirement R28 Marketing. The new version is called 5.3 and it is valid until 31 December 2017.

At the Nordic Ecolabelling board meeting on 8 November 2016 it was according to evaluation decided to add outdoor window cleaners, oven cleaners and wash polish/wash-and-wax care products to the product group definition. References to the outdated legislation were also removed. Nordic Swan Ecolabelling's Criteria Group decided per capsulam on 21 December 2016 to extend the criteria by 9 months. The new version is called 5.4 and is valid until 31 October 2019.

On the 9 October 2017 Nordic Ecolabelling's Criteria Group decided to remove R20 Take-back system. Furthermore, Nordic Ecolabelling's Criteria Group decided on 15 March 2018 to prolong the criteria with 7 months until 31 May 2020. The new version is called 5.5.

The ecolabelling licence will remain in force for as long as the criteria continue to be fulfilled, and until the criteria cease to apply. The criteria may be extended or adjusted in which case the licence will be extended automatically and the licence holder will be notified.

One year (at the latest) before the criteria cease to apply, notice will be given of the criteria that will apply after the final date of validity of the current criteria. The licence holder will then be given the opportunity to renew the licence.

New criteria

In future criteria, the following areas will be assessed, among others:

- Possibility of dividing H410 substances into sub-categories according to ecotoxicity values.
- Investigating the effects of changed environmental hazard classification of surfactants and opportunities for cancelling or amending the exception in R10.
- Relevance of adding other soil types (such as protein and starch) to the performance test
- Relevance of limiting CMR, PBT and SVHC substances in packaging also.
- Relevance of the requirement for manufacturers to offer a pump or other dispensing device for professional products
- Possibility and relevance of imposing requirements for compliance with industry agreements on logistics, optimisation, distribution and transport.
- Possibility of imposing more specific requirements for packaging return systems.
- Possibility of imposing relevant requirements for lowering the quantity of colourants in products.
- Possibility of expanding the product group with products currently falling outside the product group limits.

Appendix 1 Marketing of Nordic-Ecolabelled cleaning products – removed appendix

The appendix is removed as decided by the Board of Directors 17 November 2014.

Appendix 2 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 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.

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 Acute 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

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 $\log K_{ow}$ 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 $\log K_{ow} \geq 4.0$.

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 BLOWIN) 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 ($LC_{50}/EC_{50}/IC_{50} > 10$ 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".

7 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 from the ecolabelling body or via the relevant national Nordic Ecolabelling website (see page 2 for addresses). The list can also be found at:

http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/did_list_en.htm

If an ingredient is not found on the DID list, the factors shall be set as described in part B of the DID list:

http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/pdf/did_list/didlist_part_b_en.pdf

Valid to these criteria is the DID list dated January 2007 or later.

To calculate CDV in R11, a worksheet is available from Nordic Ecolabelling and can be downloaded from the Swedish and Danish Web site

<http://www.svanen.se/en/Criteria/Nordic-Ecolabel-criteria/Criteria/?productGroupID=15>

<http://www.ecolabel.dk/da/blomsten-og-svanen/kriterier/vis-produktgruppe?produktgruppeid=026&projektgruppe=Svanen>

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

8 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 3 Declaration from the producer of the cleaning product

For use in applications for the Nordic Swan Ecolabel licence for cleaning products. To be able to complete the following declaration requires completed declarations for all ingredients (Appendix 4 or equivalent).

This declaration is based on best knowledge at the time of application, based on the test and/or declarations from the manufacturer of raw materials. With reservations for developments and new scientific findings. If such new knowledge should be made available, the undersigned is required to submit an updated declaration to Nordic Ecolabelling.

Product name: _____

☐ Consumer/retail product

☐ Professional product*

* Products are considered professional if more than 80% of sales are to the professional market.

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 % 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.

R4: Does the product contain any substances that are or that can liberate substance that are classified as carcinogenic (Carc), mutagenic (Muta), reproductive toxic (Repr) or harmful to breastfed children (Lact.) according to Table 2? Yes ☐ No ☐

R5: Does the product contain substances classified as sensitizing/allergenic with H334 and/or H317? (See also the specific requirements on fragrances in R9) Yes ☐ No ☐

R6: Does the product contain:

Alkylphenolethoxylates (APEO) and/or alkylphenol derivatives (APD) Yes ☐ No ☐

Reactive chloro-compounds such as sodium hypochloride Yes ☐ No ☐

Chloro-organic compounds Yes ☐ No ☐

Quaternary ammonium salts that are not readily biodegradable	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Methyldibromoglutaronitrile (MG)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Benzalconiumchloride (CAS 8001-54-5)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
EDTA (ethylene diamine tetraacetate) and/or its salts	Yes <input type="checkbox"/>	No <input type="checkbox"/>
DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
LAS (linear alkylbenzene sulphonates)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Phosphorus	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nanomaterials/particles: <i>(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)</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Perfluorinated substances and polyperfluorinated alkylated substances (PFAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Methyldibromo Glutaronitrile (MG, CAS 35691-65-7)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nitromusks and polycyclic musks	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances with potential for endocrine disruption of Category 1 or 2 in accordance with official EU lists. The EU report on endocrine disruptors can be read in full at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, from page 238)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances that have been evaluated in the EU to be PBT (Persistent, bioaccumulable and toxic) or vPvB (very persistent and very bioaccumulable) in accordance with Annex XIII of REACH. See for example http://esis.jrc.ec.europa.eu/index.php?PGM=pbt	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances of very high concern according to REACH article 59: http://echa.europa.eu/chem_data/candidate_list_en.asp .	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R7: Does the product contain preservatives?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, specify the logKow or BCF: _____		
Are the preservatives only added to preserve the product?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R8: Does the product contain colourants?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, specify the BCF value, logKow value or E-no.: _____		
R9: Does the product contain fragrances, including fragrant plant extracts?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
9a) If yes, is the fragrance handled in accordance with the guidelines of the International Fragrance Association (IFRA).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R10: Does the product contain any substances carrying any of the following hazard statements/risk phrases?		
H410	Yes <input type="checkbox"/>	No <input type="checkbox"/>
H411	Yes <input type="checkbox"/>	No <input type="checkbox"/>
H412	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R14: Does the product contain microorganisms?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Packaging (R17, R20)

R17: Does the packaging (including caps, lids, pumps and labels) contain PVC or other chlorine-based plastic?

Yes ☐No ☐

R20: Are pertinent national regulations, legislation and/or agreements within the sector regarding recycling systems for products and packaging met in the Nordic countries in which the Nordic Swan Ecolabelled product is/will be marketed?

Finland (e.g. PYR)

Yes ☐No ☐

Sweden (REPA)

Yes ☐No ☐

Norway (Grønne Punkt)

Yes ☐No ☐

If the answer is yes to any of the above questions (excluding R16 and R19), specify the name, CAS number, concentration and purpose of adding each substance in question:

If the composition of the product is altered, a new declaration on the fulfilment of the requirements shall be sent to Nordic Ecolabelling.

Location and date:	Company name/stamp:
Responsible person of staff:	Signature of responsible person:

Appendix 4 Declaration from the manufacturer of the raw material/ingredients

For use in applications for the Nordic Swan Ecolabel licence cleaning products.

This declaration is based on best knowledge at the time of application. With reservations for developments and new scientific findings. If such new knowledge should be made available, the undersigned is required to submit an updated declaration to Nordic Ecolabelling.

Ingredient name: _____

Yes No

Can the appendix be added to the Nordic Swan Ecolabel internal chemical database? ☐ ☐

Yes – Signed appendix needs to be sent once and can thereafter used for all applications in all Nordic countries.

No – A new signed appendix needs to be sent in by each applicant

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 % 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.

.

It must be stated in this declaration whether any of the substances below are part of the raw material, regardless of whether they are pollutants or not, and regardless of amount. This must then be explained in more detail on page 2 of this declaration.

R4: Does the ingredient contain any substances that are or that can liberate substance that are classified as carcinogenic (Carc), mutagenic (Muta), reproductive toxic (Repr) or harmful to breastfed children (Lact.) according to Table 2? Yes ☐ No ☐

R5: Does the ingredient contain substances classified as sensitizing/allergenic with H334/R42 and/or H317/R43? (See also the specific requirements on fragrances in R9) Yes ☐ No ☐

R6: Does the ingredient contain:

Alkylphenoethoxylates (APEO) and/or alkylphenol derivatives (APD) Yes ☐ No ☐

Reactive chloro-compounds such as sodium hypochloride Yes ☐ No ☐

Chloro-organic compounds	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Quaternary ammonium salts that are not readily biodegradable	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Benzalconiumchloride (CAS 8001-54-5)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
EDTA (ethylene diamine tetraacetate) and/or its salts	Yes <input type="checkbox"/>	No <input type="checkbox"/>
DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
LAS (linear alkylbenzene sulphonates)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Phosphorus	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nanomaterials/particles: <i>(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)</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Perfluorinated substances and polyperfluorinated alkylated substances (PFAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Methyldibromo Glutaronitrile (MG, CAS 35691-65-7)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nitromusks and polycyclic musks	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances with potential for endocrine disruption of Category 1 or 2 in accordance with official EU lists. The EU report on endocrine disruptors can be read in full at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, from page 238)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances that have been evaluated in the EU to be PBT (Persistent, bioaccumulable and toxic) or vPvB (very persistent and very bioaccumulable) in accordance with Annex XIII of REACH. See for example http://esis.jrc.ec.europa.eu/index.php?PGM=pbt	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances of very high concern according to REACH article 59: http://echa.europa.eu/chem_data/candidate_list_en.asp .	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R7: Does the ingredient contain preservatives?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, specify the logKow or BCF: _____		
Are the preservatives only added to preserve the product?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R8: Does the ingredient contain colourants?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, specify the BCF value, logKow value or E-no.: _____		
R9: Does the product contain fragrances, including fragrant plant extracts?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
9b-d) If yes, does the fragrance contain substances handled in accordance with Regulation (EC) No 648/2004 on detergents with amendments (see also Appendix 7) and/or fragrance substances classified with H334/R42 and/or H317/R43?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R10: Does the ingredient contain any substances carrying any of the following hazard statements/risk phrases?		
H410 (R50/53)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
H411 (R51/53)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
H412 (R52/53)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R14: Does the ingredient contain microorganisms?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If the answer is yes to any of the above questions, specify the name, CAS number, concentration and purpose of adding each substance in question:

If the composition of the product is altered, a new declaration on the fulfilment of the requirements shall be sent to Nordic Ecolabelling.

Location and date:	Company name/stamp:
Responsible member of staff:	Signature of responsible person:

Appendix 5 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.

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 comparative product:

The test product must be compared with the product normally used by the user.

The comparative product must not be the same as the test product. The test product and the comparative 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 three questionnaires for the user test:

- All-purpose cleaner and kitchen products (Appendix 5a)
- Sanitary cleaner (Appendix 5b)
- Window and glass cleaner (Appendix 5c)
- Wash polish/wash-and-wax care products (Appendix 5d)

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 5d, 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 5d)

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

Appendix 5a 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 comparative product (= the product that is normally used):

Dosing of comparative 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: _____

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 5b Wash effectiveness – for sanitary 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.

☐ 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 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?'			
In the case of acid products: The ability of the test product to 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 5c 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 5d 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
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 5e 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?			

Comments _____

Date:
Signature:
Name in block capitals:

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 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".

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.

The fat-removing and de-scaling performance of sanitary and WC cleaners shall be tested.

The fat-removing performance of all-purpose cleaner and kitchen cleaner shall be tested.

The performance of glass and window cleaner shall be tested regarding fat removal (fingerprints) and particulate matter.

Requirements for test laboratories

The requirements stipulated for test laboratories are presented in Appendix 2.

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 comparative 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, consumer, RTU) as the product.

- ☐ Answer the following:
- How long has the comparative product been on the market?
 - What areas of application do the product and the comparative product have in common?
 - Why was this product in particular chosen as the comparative product?

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.

- ☐ Answer the following:
- What type of surface was used in the test?
 - Why is this surface relevant?
 - 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. 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

Product/Area of use	Soil(s)
Sanitary cleaner and WC cleaner	Fat/lime soap and limescale
All-purpose cleaner and kitchen cleaner	Fat
Window and glass cleaner	Fat (fingerprints) and particulate matter (dust and/or soot).

- ☐ a) State the formula for the soil
- ☐ b) 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:

$$EFF = (R_c - R_b) / (R_a - R_b)$$

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

R_b = Reflectance after soiling

R_c = Reflectance after washing

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

The following must also be calculated:

EFF_p = Average EFF value for the product undergoing testing

EFF_r = Average EFF value for the reference product

EFF_w = 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

$$EFF_p \geq EFF_s$$

7.2. Wash effectiveness better than water

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

$$EFF_p > EFF_v$$

- ☒ 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 2.

Testing of wash polish and wash-and-wax care products for consumers

The cleaning and care properties are measured either visually or optically. Testing must show that the test product is better than or as good as a second equivalent

product. The comparative product must be well established on the market in the country or countries in which the product will be marketed.

Requirement

An account must be provided of the test method used, test performers, test conditions (e.g. type of floor, type of soiling, cleaning method, etc.), results and the reason for the choice of comparative product.

Appendix 7 **Fragrances on the “26 list” (Regulation (EC) no. 648/2004 on detergents)**

Amyl cinnamal	122-40-7	Amylcinnamyl alcohol	101-85-9
Anisyl alcohol	105-13-5	Benzyl alcohol	100-51-6
Benzyl benzoate	120-51-4	Benzyl cinnamate	103-41-3
Benzyl salicylat	118-58-1	Cinnamal	104-55-2
Cinnamyl alcohol	104-54-1	Citral	5392-40-5
Citronellol	106-22-9	Coumarin	91-64-5
d-limonen	5989-27-5	Eugenol	97-53-0
Farnesol	4602-84-0	Gerianol	106-24-1
Hexyl cinnamal-dehyd	101-86-0	Hydroxycitronella	107-75-5
Hydroxymethyl- phenyl cyclohex- enecarboxaldehyd (= Lyrall)	31906-04-4	Isoeugenol	97-54-1
Linalool	78-70-6	Methyl heptine carbonat	111-12-6
Gamma-methylionon	127-51-5	Oakmoss extract	90028-68-5
Treemoss extract	90028-67-4		

Lilial (CAS 80-54-6) have been self-classified with Rep2, H361 and are therefore excluded by requirement R4 CMR substances. Therefore it is no longer on the list above.

Appendix 8 Declaration from the producer of the wash polish and wash-and-wax care products

For use in applications for the Nordic Swan Ecolabel licence for wash polish and wash-and-wax care products. To be able to complete the following declaration requires completed declarations for all ingredients (Appendix 4 or equivalent).

This declaration is based on best knowledge at the time of application, based on the test and/or declarations from the manufacturer of raw materials. With reservations for developments and new scientific findings. If such new knowledge should be made available, the undersigned is required to submit an updated declaration to Nordic Ecolabelling.

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 % 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.

☐ Consumer/retail product

☐ Professional product

R4: Does the product contain any substances that are or that can liberate substance that are classified as carcinogenic (Carc), mutagenic (Muta), reproductive toxic (Repr) or harmful to breastfed children (Lact.) according to Table 2?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R6: Does the product contain >0,5 % volatile organic compounds? (defined under 1999/13/EC as VOCs, i.e. substances that, at 20°C, have a vapour pressure > 0.010 kPa.)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		

R6: Does the product contain >0,5 % phosphorus?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R6: Does the product contain:		
Phthalates	Yes <input type="checkbox"/>	No <input type="checkbox"/>
APEO (alkylphenolethoxylates) or derivatives thereof?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Halogenated and aromatic solvents	Yes <input type="checkbox"/>	No <input type="checkbox"/>
EDTA (ethylene diamine tetraacetic acid)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
DTPA (diethylene triamine pentaacetate)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Phosphonates	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Perfume	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Dyestuffs or pigments	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances judged to be "Substances of very high concern" (SVHC), and that are on the candidate list http://echa.europa.eu/chem_data/candidate_list_en.asp	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nanoparticles (from nanomaterials)*?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>* The definition of nanomaterials follows the European Commission's definition of nanomaterials, from 18 October 2011, with the exception of the limit for the number size distribution of particles that are reduced to 1%: Nanomaterial: "a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 1% of the particles in the number size distribution, one or more external dimensions are in the size range 1-100 nm". Polymer emulsions are not considered to be nanomaterials.</i>		
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R7: Does the product contain preservatives?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, are the preservatives added to preserve a raw material or the product?		
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		

R10: Does the product contain any substances carrying any of the following hazard statements H410, H411, H412 or H413?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R17: Do the packaging or packaging components (including caps/lids/pumps and labels) contain PVC or other halogenated plastic?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
R20: Are pertinent national regulations, legislation and/or agreements within the sector regarding recycling systems for products and packaging met in the Nordic countries in which the Nordic Swan Ecolabelled product is/will be marketed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Finland (e.g. PYR)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Sweden (REPA)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Norway (Grønne Punkt)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If the composition of the product is altered, a new declaration on the fulfilment of the requirements shall be sent to Nordic Ecolabelling.

Location and date:	Company name/stamp:
Responsible person of staff:	Signature of responsible person:
Telephone	E-mail

Appendix 9 Declaration from the manufacturer of the raw material/ingredients

For use in applications for the Nordic Swan Ecolabel licence wash polish and wash-and-wax care products.

This declaration is based on best knowledge at the time of application. With reservations for developments and new scientific findings. If such new knowledge should be made available, the undersigned is required to submit an updated declaration to Nordic Ecolabelling.

Ingredient name: _____

Yes No

Can the appendix be added to the Nordic Swan Ecolabel internal chemical database? ☐ ☐

Yes – Signed appendix needs to be sent once and can thereafter used for all applications in all Nordic countries.

No – A new signed appendix needs to be sent in by each applicant

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 % 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.

R4: Does the raw material contain any substances that are or that can liberate substance that are classified as carcinogenic (Carc), mutagenic (Muta), reproductive toxic (Repr) or harmful to breastfed children (Lact.) according to Table 2?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R6: Does the raw material contain volatile organic compounds? (defined under 1999/13/EC as VOCs, i.e. substances that, at 20°C, have a vapour pressure > 0.010 kPa.)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		

R6: Does the raw materiaö contain phosphorus?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R6: Does the raw material contain:		
Phthalates	Yes <input type="checkbox"/>	No <input type="checkbox"/>
APEO (alkylphenoethoxylates) or derivates thereof?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Halogenated and aromatic solvents	Yes <input type="checkbox"/>	No <input type="checkbox"/>
EDTA (ethylene diamine tetraacetic acid)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
DTPA (diethylene triamine pentaacetate)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Phosphonates	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Perfume	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Dyestuffs or pigments	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Substances judged to be "Substances of very high concern" (SVHC), andthat are on the candidate list http://echa.europa.eu/chem_data/candidate_list_en.asp?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Nanoparticles (from nanomaterials)*?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<i>* The definition of nanomaterials follows the European Commission's definition of nanomaterials, from 18 October 2011, with the exception of the limit for the number size distribution of particles that are reduced to 1%: Nanomaterial: "a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 1% of the particles in the number size distribution, one or more external dimensions are in the size range 1-100 nm". Polymer emulsions are not considered to be nanomaterials.</i>		
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		
R7: Does the raw material contain preservatives?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, are the preservatives added to preserve a raw material?		
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		

R10: Does the raw material contain any substances carrying any of the following hazard statements H410, H411, H412 or H413?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If yes, state chemical name, CAS no. and quantity in ppm, w/w% or mg/kg:		

If the composition of the product is altered, a new declaration on the fulfilment of the requirements shall be sent to Nordic Ecolabelling.

Location and date:	Company name/stamp:
Responsible person of staff:	Signature of responsible person:
Telephone	E-mail