

Nordic Ecolabelling for
Hand dishwashing detergents



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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 hand dishwashing detergent?

A Nordic Swan Ecolabelled hand dishwashing detergent takes account of the environment and the user's health, while at the same time being at least as effective as other hand dishwashing detergents. A Nordic Swan Ecolabelled hand dishwashing detergent is among the best hand dishwashing detergents in terms of environmental profile. The choice of chemicals and the packaging are environmentally aware, and the use stage and raw material extraction are also taken into account in the requirements.

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

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

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

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

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

Nordic Swan Ecolabelled hand dishwashing detergents:

- Meet strict requirements concerning environmentally hazardous chemicals, including requirements on ecotoxicity and biodegradability
- Meet strict requirements concerning chemicals that are harmful to health, including a ban on the preservative MI and other sensitising substances
- Are used sparingly to conserve the planet's resources.
- Packaging requirements contribute to a circular economy, for example by addressing packaging design and material choices.

Why choose the Nordic Swan Ecolabel?

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

What can carry the Nordic Swan Ecolabel?

Liquid hand dishwashing detergents for consumer use or for professional use are eligible for the Nordic Swan Ecolabel. The main function of the product must be as a hand dishwashing detergent. Ready-to-use products, presoaks or products that are intended to disinfect or prevent the growth of microorganisms (e.g. bacteria) are not covered by the product group.

Products count as products for the professional market if > 80% of sales are to the professional market.

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 2.

What is required?

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

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

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

☒ Enclose

🔍 Requirement checked on site

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

License validity

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

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

On-site inspection

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

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 2 for addresses. Further information and assistance (such as calculation sheets or electronic application help) may be available. Visit the relevant national website for further information.

1 General requirements

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

Definition:

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

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

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

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

O1 Description of the product

The applicant must give detailed information on the hand dishwashing detergent to which the application relates. The following information is required:

- Description of the product
- The product must carry information on the recommended dosing on the primary packaging.
 - The recommended dosing for a normal degree of soiling must be clearly and simply stated on the label/packaging.
 - For consumer products, the dosing must be stated as x number of millilitres to y litres of water or as z teaspoons* to y litres of water.
 - For products intended for professional use, the dosing may, for example, be stated as x ml or an equivalent y pumps or similar per z litre of water.

*1 teaspoon equals 5 ml

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

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

The DID number is an ingredient's number on the DID list, which is used in calculating chemical requirements. The DID list can be obtained from Nordic Ecolabelling's websites, see addresses on page 2.

- ☒ Description of the product, e.g. label and product data sheet (if available) that includes dosing instructions. The information on labels and/or product data sheets must be in the languages in which the product is marketed.
- ☒ A complete declaration of the composition of the product with information as set out in the requirement. Nordic Swan Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites.
- ☒ Safety data sheets for each raw material in line with prevailing European legislation (Annex II to REACH Regulation, 1907/2006/E2EC).

O2 Classification of the product

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

Tabell O2 Classification of the product

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

Acute toxicity	Acute Tox 1 or 2	H300
	Acute Tox 1 or 2	H310
	Acute Tox 1 or 2	H330
	Acute Tox 3	H301
	Acute Tox 3	H311
	Acute Tox 3	H331
	Acute Tox 4	H302
	Acute Tox 4	H312
	Acute Tox 4	H332
	Specific target organ toxicity, single or repeated exposure	STOT SE 1
STOT SE 2		H371
STOT RE 1		H372
STOT RE 2		H373
Skin corrosion/irritation	Skin Corr. 1A, 1B or 1C	H314
Aspiration hazard	Asp. Tox. 1	H304
Respiratory or skin sensitisation	Resp. Sens. 1, 1A or 1B	H334
	Skin Sens. 1, 1A or 1B or products labelled with EUH208: "Contains (name of sensitising substance). May cause an allergic reaction."	H317

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

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

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

2 Sustainable raw materials

03 Sustainable raw materials

1. The licence holder must document that they are working to increase their purchasing of sustainable and renewable raw materials or that they require their manufacturer to work on increasing their purchasing of sustainable renewable raw materials for Nordic Swan Ecolabelled products. The targets must be quantitative and time-based, and they must be set by the company's management.
 2. The following data is required for each organic raw material/ingredient in the Nordic Swan Ecolabelled hand dish wash detergent:
 - a) The proportion of the raw material/constituent part of the raw material/ingredient that comprises renewable raw material or originates from renewable raw material, calculated on an annual basis.
 - b) What does the renewable raw material consist of (e.g. palm oil, coconut oil, grape seed oil, beeswax)? State the name of the supplier.
 - c) Does the renewable raw material have any sustainability certification? If yes, state which and at what level of traceability (No Traceability, Identity Preserved, Segregated, Mass Balance, Book & Claim)?
1. Policy or equivalent documentation of the licence holders work for renewable and sustainable materials, including quantitative, time-based targets.
2. Appendix 3 from the raw material supplier.

O4 Certified raw materials from oil palms

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

- Information from råvaruproducenten whether palm oil, palm kernel oil or palm oil or palm kernel oil derivatives are included in the raw material, Appendix 2 can be used.
- A valid RSPO CoC certificate
- The producer of raw materials or the producer of the Nordic Swan Ecolabelled product must show by means of a balance calculation and/or invoices that the proportion of certified raw material corresponds to the amount of certified palm oil raw materials. Alternatively, a declaration from the producer of raw materials that all purchased palm oil raw materials are certified

3 Requirements for ingoing substances

O5 Classification of ingoing substances

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

Table O5 Classification of ingoing substances

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

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

**The following substances are exempt:

- Fragrance in consumer products (See O7).
- Enzymes (including stabilisers and preservatives in the enzyme raw material) can be included if they are in liquid form or granulate capsules.

- Safety data sheet for each raw material in line with European legislation (Annex II to REACH, Regulation (EC) No 1907/2006).
- Appendix 2 and 3 or equivalent certification completed and signed.

O6 Prohibited substances

The following substances are excluded from use in the product:

- Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)
- EDTA (Ethylene diamine tetraacetate and its salts) and DTPA (Diethylenetriamine pentaacetate)

- Quarternary ammonium salts that are not readily degradable
 - Organic chlorine compounds and hypochlorites
 - Methylidibromo glutaronitrile (MG, CAS 35691-65-7)
 - Nitro musks and polycyclic musk compounds
 - Per- and polyfluorinated compounds (PFC)
 - Phosphorous
 - BHT (butylated hydroxytoluene, CAS 128-37-0)
There is an exemption for BHT in fragrances in quantities of ≤ 100 ppm, on condition that the amount in the hand dish wash detergent does not exceed 1 ppm.
 - Microplastics
Microplastics are defined here as plastic particles that are insoluble (in water), smaller than 1 mm and non-biodegradable under OECD 301 A-F.
 - Substances that are considered to be potential endocrine disruptors in category 1 or 2, according to official lists within the EU. The EU's report on endocrine disruptors can be read in full at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, page 238 onwards)
 - Substances evaluated by the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH and substances that have not yet been investigated, but which meet these criteria.
 - Substances judged to be "Substances of very high concern", which are included on the Candidate List: <https://echa.europa.eu/candidate-list-table>.
 - Nanomaterials/particles
Nanomaterials/particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011: "A natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions are in the size range of 1-100 nm." Examples are ZnO, TiO₂, SiO₂, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.
- A duly completed and signed declaration of compliance with the requirement, Appendix 2 or similar documentation for the product, Appendix 3 or similar signed documentation for the raw materials.

07 Fragrances

The requirement also includes fragrances in plant extracts:

- a) Fragrances must be added in line with IFRA's guidelines.
The guidelines of IFRA (International Fragrance Association) can be found at www.ifraorg.org/
- b) Fragrances must not be present in professional products.
Products for professional use are defined here as products that are marketed for use in professional contexts such as institutions, catering kitchens, restaurants and within the public sector.
Where products are sold to both professionals and consumers, the product is considered a professional product if the proportion sold to professionals is 80% or higher. Where there is any confusion about whether a product is

for professionals or consumers, Nordic Ecolabelling may require documentation explaining where the product is intended to be sold. The requirement also includes fragrances in plant extracts.

- c) A fragrance substance which is judged to be sensitising with the hazard statement H317 and/or H334, or which is subject to declaration, may be present at a maximum of 0.0100% (100 ppm) in the consumer product.
- d) The fragrance substances in Table O7 may be present in products at a maximum of 0.0100% (100 ppm) per substance in consumer products:

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

INCI name (eller om en inte finns, parfymering namn i enlighet med CosIng)	CAS nummer
Cananga Odorata och Ylang-ylang oil	83863-30-3; 8006-81-3
Eugenia Caryophyllus Leaf / Flower oil	8000-34-8
Jasminum Grandiflorum / Officinale	84776-64-7; 90045-94-6; 8022-96-6
Myroxylon Pereirae	8007-00-9;
Santalum Album	84787-70-2; 8006-87-9
Turpentine oil	8006-64-2; 9005-90-7; 8052-14-0
Verbena absolute	8024-12-02
Cinnamomum cassia leaf oil/Cinnamomum zeylanicum, ext.	8007-80-5/84649-98-9

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

- Appendix 2 and 3 or equivalent certification completed and signed plus fragrance specifications.
- Calculation of the amount of the 26 allergens, substances classified as H334 and/or H317 and substances listed in table O7 present in the end product.

O8 Preservatives

- a) Preservatives included in the product or constituent substances must not be bioaccumulative. Preservatives are judged not to be bioaccumulative if $BCF < 500$ or $\log Kow < 4$. If both values are available, the value for the highest measured BCF is to be used, see appendix 1.
- f) The concentration of the preservative must be optimised and a Challenge test or equivalent must be performed to show this.

- Documentation of BCF or logKow, Appendix 2 and 3 or safety data sheet for the preservative.
- Test report for the completed Challenge test or equivalent showing that an optimum concentration of the preservative is used in the product. See Appendix 1 concerning test laboratory requirements and for information on Challenge tests.

4 Dosing, ecotoxicity and biodegradability

09 Maximum dosing

The dosing is calculated as the recommended dose in grams per litre of water.

The recommended dose must not exceed **1.0 grams per litre of water**.

For density calculations, density at room temperature shall be used. If the dose is specified as an interval, the highest figure in the interval must be used in the dosing calculation for this requirement, and in the WUR requirement (R16).

- Calculation of dose per litre of water and a product label or draft label with the specified dose.

010 Long-term environmental effects

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

$$FV=100*CH_{410} + 10*CH_{411} + CH_{412} \leq 0,010 \text{ grams/litre in-use solution}$$

where

CH₄₁₀ = concentration of substances with H410 in grams/litre in-use solution*

CH₄₁₁ = concentration of substances with H411 in grams/litre in-use solution*

CH₄₁₂ = concentration of substances with H412 in grams/litre in-use solution*

* *The amount of ingoing substances with respective classification in the product at a dose of 0.60 grams / liter in-use solution, if the indicated dose on the label is less than or equal to 0.6 g / l. For products with dosage above 0.60g / liter in-use solution, the indicated dosage is used.*

Exemptions:

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

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

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

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

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

- Appendices 2 (product) and 3 (raw material) signed and completed, or alternatively equivalent signed information.
- Report on surfactants that are to be exempted from the requirement (quantity, classification, biodegradability).

O11 Critical dilution volume (CDV)

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

A product's critical dilution volume is calculated at a dose of 0.60 g/l of working solution, if the stated dose is less than or equal to 0.60 g/l. If the recommended dose exceeds 0.60 g/l, the recommended dose itself is used in the calculations. The recommended dose, however, cannot exceed 1,0 g/l (see O8).

The product's critical dilution volume (CDV) may not exceed the following limit value for CDV_{chronic}

$$CDV_{\text{chronic}} \leq 1500 \text{ litres}$$

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

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

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

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

$TF_i \text{ chronic}$ = chronic toxicity factor for substance "i", in accordance with the DID list.

If

$TF_i \text{ chronic}$ is lacking, $TF_i \text{ acute}$ can be used.

- Calculation of CDV_{chronic} for the hand dish wash detergent. Nordic Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites

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

O12 Surfactants – aerobically and anaerobically biodegradable

- a) All surfactants must be easily biodegradable according to test method no. 301 A–F in the OECD guidelines for testing of chemicals or other equivalent testing methods.
- b) All surfactants must be anaerobically biodegradable in accordance with ISO 11734, ECETOC no. 28, OECD 311 or equivalent testing methods.

- Reference to the DID list dated 2016 or later versions.
- If the DID list lacks the relevant data for surfactants, data may be taken from the safety data sheet on condition that the data is reliable and that the test methods are in agreement with Appendix 1. Section B of the DID list shows how to make the calculations of the various factors. It is also permitted to refer to

analogous observations, as long as they are carried out by a competent, independent third party, and refer to relevant data from literature that has been subject to scientific scrutiny.

5 Performance

Under the requirement, a product must be at least as good as or better than the product with which it is being compared (the reference product).

O13 Performance test

Performance is measured as the product's cleaning ability (ability to remove soiling/make dishes clean), and its cleaning capacity (how long the product lasts), and it is compared with a reference product.

The product must be as good as or better than the reference. This entails that at least 80% of the testing rounds (e.g. 4 out of 5) must yield a positive result for the test product (as good as or better than the reference product) in order for the test product to be considered in compliance with the performance requirement. Alternatively, the applicant may use statistical methods and, with a one-sided 95% confidence interval, show that the test product is as good as or better than the reference product in at least 80% of the testing rounds.

The performance must be tested in a laboratory test (see test laboratory requirements in Appendix 1) within the parameters described in Appendix 6. The results are to be presented in the report, as set out in Appendix 6. The test must be performed by a laboratory that meets the requirements concerning test laboratories in Appendix 1.

- The reference product is tested at the lowest recommended dose, as stated on the packaging. If there are no dosing instructions for the reference, the dose is set at the same as for the test product.
- The test product is tested at the lowest recommended dose.
- The reference product is defined as a product that at the time is one of the most well-established/market-leading hand dishwashing detergents in a Nordic country or in the countries in which the product will be sold.
- The reference product must be a product other than the product that is set to be ecolabelled. The reference product must be made by a manufacturer other than the one that produces the applicant product.
- The reference product must be purchased specifically for the test. Products for the professional market are to be tested against another professional product, and similarly a consumer product must be compared against another consumer product. If the product is marketed to both the professional and consumer markets, the test is performed against a professional product.

Test report showing that the product is as good as or better than the reference product, in accordance with Appendix 6.

Documentation on the test laboratory, in accordance with Appendix 1.

6 Packaging

O14 Recycling design

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

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

- ☒ Packaging specifications (including bottle, labels and closures) or certificate showing the plastic used
- ☒ Appendix 2 declaration from the manufacturer of the hand dish wash detergent.
- ☒ A signed declaration of compliance with the stated material composition for the packaging, including bottle, label or shrink wrap label, the closure, filler, colourant where applicable, Appendix 5 or an equivalent declaration may be used.
- ☒ A calculation showing that the density measurement is not exceeded, see appendix 4.

O15 Weight-Utility Ratio (WUR)

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

The exemptions from WUR calculation are:

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

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

$$WUR = \sum [(2 \cdot V_i - 2.5 \cdot N_i) / (D_i \cdot t_i)] \leq 0,1 \text{ gram packaging / liter in-use solution}$$

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

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

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

D_i = No. of functional doses in the primary packaging component (i). For products that are sold pre-diluted, D = product volume (in no. of litres). If the primary packaging is sold packaged together with a refill, D is calculated as the sum of the functional doses in both packs (just as V is the sum of the weight of both packs (see description of V)).

- ☒ Declaration/documentation from the packaging manufacturer stating the type of material in the packaging components (e.g. closure (cap, spray nozzle etc.), bottle and labels). Appendix 5 can be used.
- ☒ Calculation of weight-utility ratio (WUR) and required documentation on reuse of the packaging component. Nordic Ecolabelling's calculation sheet can be used and can be obtained from Nordic Ecolabelling's websites
- ☒ Declaration from the packaging manufacturer about the proportion of recycled material, if recovered/recycled material is used. Appendix 5 can be used.
- ☒ If the exemption is used:
 - Documentation that shows that packaging made of more than 80% post consumer recycled (PCR) material (Appendix 5 can be used).
 - or
 - Documentation that shows is part of a take-back system for a product.

7 Quality and regulatory requirements

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

O16 Responsible person and organisation

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

- ☒ Organisational chart showing who is responsible for the above.

O17 Documentation

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

- ℘ Checked on site as necessary.

O18 Quality of hand dish wash detergent

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

- ℘ The claims archive is checked on site.

O19 Planned changes

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

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

O20 Unplanned nonconformities

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

- Procedures detailing how unplanned nonconformities are handled.

O21 Traceability

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

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

O22 Take-back system

Relevant national regulations, legislation and/or agreements within the sector regarding the recycling systems for products and packaging shall be met in the Nordic countries in which the Nordic Swan Ecolabelled XX are marketed.

- Declaration from the applicant regarding adherence to existing recycling/take-back agreements.

O23 Legislation and regulations

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

- Duly signed application form.

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

Regulations for the Nordic Ecolabelling of products

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

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

Follow-up inspections

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

The licence may be revoked if it is evident that hand dish wash detergent does not meet the requirements.

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

History of the criteria

Nordic Ecolabelling adopted version 6.0 of the criteria for XX on DAY MONTH YEAR. The criteria are valid until DAY MONTH YEAR.

Appendix 1 Analyses, test methods and calculations

1A Requirements on the analysis laboratory

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

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

For Challenge tests, the applicant's own analysis laboratory/test procedure may be approved for analysis and testing if:

- The manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9000.
- The test method for performance test is part of the quality system.
- Nordic Ecolabelling shall have access to all raw data from performance testing.

1B Requirements on the analysis laboratory for performance

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

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

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

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

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

2 Ecotoxicological test methods

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

3 Aquatic toxicity

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

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

4 Bioaccumulation

A substance is considered bioaccumulating if tested for bioaccumulation on fish according to method OECD 305 A-E and its bioconcentration factor (BCF) is >500 . If no BCF value has been determined, a substance is considered bioaccumulating if its $\log K_{ow}$ 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 BIOWIN) are permitted but if the results of an approximation are close to the set limit values or if Nordic Ecolabelling holds contradictory information, more reliable information is required.

5 Aerobic biodegradability

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

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

6 Anaerobic biodegradability,

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

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

(NOEC/EC_x > 0.1 mg/l or LC₅₀/EC₅₀/IC₅₀>10 mg/l), and if any of the following criteria are fulfilled:

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

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

7 (Potential) endocrine disruptors

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

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

The most recent reports can be obtained from

http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf

and an Access database in which all evaluated substances listed can be downloaded at

http://ec.europa.eu/environment/chemicals/endocrine/strategy/index_en.htm.

8 DID list

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

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

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

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

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

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

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 2 Declaration from the producer of the hand dish wash detergent

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

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

Product name: _____

Professional product

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

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

Consumer/retail product

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

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

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

O5: Does the product contain substances classified with any of the hazard phrases below?			
Incl. all classification variants. For example, H350 also covers classification H350i.			
H350 – Carc 1A eller 1B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H351 – Carc 2	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H340 – Muta 1A eller 1B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H341 – Muta 2	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H360 – Repr 1A och 1B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H361 – Repr 2	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H362 – Lact.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H334 – Resp Sens. 1/1A/B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H317 – Skin Sens. 1/1A/B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
O6: Does the product contain any of the following substances?			
Alkylphenoethoxylates (APEO) and/or alkylphenol derivatives (APD)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
EDTA (Ethylenediaminetetraacetic acid) and its salts (see however exception for solid soap O21) and/or DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Quaternary ammonium salts that are not readily biodegradable	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Organochloride compounds and hypochlorite	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Methyldibromoglutaronitrile ((MG, CAS 35691-65-7)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Nitro musks and polycyclic musk compounds	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Perfluorinated and polyfluorinated substances (PCF)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
BHT (butylated hydroxytoluene, cas 128-37-0) <i>An exception is made for BHT in perfumes in the amount of ≤100 ppm provided that the amount in the cosmetic products does not exceed 1 ppm</i>	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Mikroplastics Defined as insoluble plastic particles that are < 5 mm and are not biodegradable under OECD 301 A-F)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances considered to be (potential) category 1 or 2 endocrine disruptors accordance with the European Union's reports concerning endocrine disruptors The EU's reports on potential endocrine disruptors can be read in their entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf , see appendix page 238 onwards)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances that have been judged in the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH and substances that have not yet been investigated but which meet these criteria.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances on the Candidate List (SVHC), se ECHA webpage: http://echa.europa.eu/sv/candidate-list-table	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Nanomaterials/-particles <i>The definition of a nanomaterial follows the European Commission's definition of nanomaterials from 18 October 2011, "A natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm-100 nm." Examples include ZnO, TiO2, SiO2 and Ag. Polymer emulsions are not considered nanomaterials</i>	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
O7: Does the product contain fragrances (incl. plant extracts)?			
If yes, have fragrances been added in line with IFRA guidelines? (IFRAs (International Fragrance Association, www.ifraorg.org)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
If yes, does the product contain fragrance substances that are judged to be sensitising with the hazard statement H317 and/or H334, or which is subject to declaration? If yes, send in perfume specifications	Yes	<input type="checkbox"/>	No <input type="checkbox"/>

If yes, does the product contain following:		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Cananga Odorata och Ylang-ylang oil	83863-30-3; 8006-81-3				
Eugenia Caryophyllus Leaf / Flower oil	8000-34-8				
Jasminum Grandiflorum / Officinale	84776-64-7; 90045-94-6; 8022-96-6				
Myroxylon Pereirae	8007-00-9;				
Santalum Album	84787-70-2; 8006-87-9				
Turpentine oil	8006-64-2; 9005-90-7; 8052-14-0				
Verbena absolute	8024-12-02				
Cinnamomum cassia leaf oil/Cinnamomum zeylanicum, ext.	8007-80-5/84649-98-9				
If yes, send in perfume specifications					
If yes, does the product contain HICC, chloroatranol and atranol?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
O8: Does the product contain preservatives?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If yes, state name and log Kow/BCF: _____					
If yes, send in test report for the completed Challenge test or equivalent showing that an optimum concentration of the preservative is used in the product.					
O10: Does the product contain substances classified as environmentally hazardous with H410, H411 and H412?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If yes, state the amount (% by weight) per classification: _____					
<p>Note that account of the hazard to environment (acute/chronic aquatic toxicity, degradability and/or bioaccumulation) is needed. If data is not available (e.g. SDS chapter 12), the substance is assessed according to a worst case scenario (H410).</p> <p>Note: An exception is made for: Proteas/Subtilisin classified with H411 and Surfactants regardless of their function classified with H411 or H412 are exempted from the requirement, on condition that they are readily degradable and anaerobically degradable in line with the test methods in Appendix 1.</p>					
O14: Are all parts of packaging compatible in regards of Appendix 5?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

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

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

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

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

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of hand dish wash detergents.

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

Name of the raw material/ingredient:

Function of the raw material/ingredient:

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

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

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

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

Observera! Ifall råvaran innehåller föroreningar listade i denna bilaga, skriv mängden i slutet av bilagan. Producenten av den Svanenmärkt produkt har ansvar för att räkna fram att kraven i kriterierna uppfylls.

Part 1 – General requirements (applies to all raw materials)			
O5: Does the raw material/ingredient contain substances classified with any of the hazard phrases below?			
Incl. all classification variants. For example, H350 also covers classification H350i.			
H350 – Carc 1A eller 1B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H351 – Carc 2	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H340 – Muta 1A eller 1B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H341 – Muta 2	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H360 – Repr 1A och 1B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H361 – Repr 2	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H362 – Lact.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H334 – Resp Sens. 1/1A/B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
H317 – Skin Sens. 1/1A/B	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
O6: Does the raw material/ingredient contains any of the following substances?			
Alkylphenoethoxylates (APEO) and/or alkylphenol derivatives (APD)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
EDTA (Ethylenediaminetetraacetic acid) and its salts (see however exception for solid soap O21) and/or DTPA (diethylene triamine pentaacetic acid, CAS 67-43-6)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Quaternary ammonium salts that are not readily biodegradable	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Organochloride compounds and hypochlorite	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Methyldibromoglutaronitrile ((MG, CAS 35691-65-7)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Nitro musks and polycyclic musk compounds	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Perfluorinated and polyfluorinated substances (PCF)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
BHT (butylated hydroxytoluene, cas 128-37-0) An exception is made for BHT in perfumes in the amount of ≤100 ppm provided that the amount in the hand dishwashing detergents does not exceed 1 ppm			
Mikroplastics <i>Defined as insoluble plastic particles that are < 5 mm and are not biodegradable under OECD 301 A-F)</i>	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances considered to be (potential) category 1 or 2 endocrine disruptors accordance with the European Union's reports concerning endocrine disruptors The EU's reports on potential endocrine disruptors can be read in their entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf , see appendix page 238 onwards)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances that have been judged in the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH and substances that have not yet been investigated but which meet these criteria.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances on the Candidate List (SVHC), se ECHA webpage: http://echa.europa.eu/sv/candidate-list-table	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Nanomaterials/-particles <i>The definition of a nanomaterial follows the European Commission's definition of nanomaterials from 18 October 2011, "A natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm-100 nm." Examples include ZnO, TiO2, SiO2 and Ag. Polymer emulsions are not considered nanomaterials</i>	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
O7: Does the raw material/ingredient contain fragrances (incl. plant extracts)?	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
If yes, have fragrances been handled in line with IFRA guidelines?	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
If yes, does the fragrance contain BHT? (see O6) If yes, state the amount (ppm or % by weight) _____			

If yes, does the fragrance contain substances that are judged to be sensitising with the hazard statement H317 and/or H334, or which is subject to declaration?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If yes, send in perfume specifications					
If yes, does the fragrance contain following:		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
	Cananga Odorata och Ylang-ylang oil	83863-30-3; 8006-81-3			
	Eugenia Caryophyllus Leaf / Flower oil	8000-34-8			
	Jasminum Grandiflorum / Officinale	84776-64-7; 90045-94-6; 8022-96-6			
	Myroxylon Pereirae	8007-00-9;			
	Santalum Album	84787-70-2; 8006-87-9			
	Turpentine oil	8006-64-2; 9005-90-7; 8052-14-0			
	Verbena absolute Cinnamomum cassia leaf oil/Cinnamomum zeylanicum, ext.	8024-12-02 8007-80- 5/84649-98-9			
If yes, send in perfume specifications					
If yes, does the fragrance contain HICC, chloroatranol and atranol?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
O8: Does the raw material/ingredient contain preservatives?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If yes, state name and log Kow/BCF: _____					
O10: Does the raw material/ingredient contain substances classified as environmentally hazardous with H410, H411 and H412?		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
If yes, state the amount (% by weight) per classification: _____					
Note that account of the hazard to environment (acute/chronic aquatic toxicity, degradability and/or bioaccumulation) is needed. If data is not available (e.g. SDS chapter 12), the substance is assessed according to a worst case scenario (H410)					

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

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

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

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

PLEASE ONLY ONE RENEWABLE RAW MATERIAL PER LINE

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

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

Renewable raw material 1 (E.g. palm oil or coconut oil or rapeseed oil or beeswax):	

Name of the supplier:	
Is the renewable raw material sustainability certified? Yes <input type="checkbox"/> No <input type="checkbox"/>	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	<input type="checkbox"/>
Identity preserved	<input type="checkbox"/>
Segregated	<input type="checkbox"/>
Mass balance	<input type="checkbox"/>
Book&Claim	<input type="checkbox"/>

Renewable raw material 2 (E.g. palm oil or coconut oil or rapeseed oil or beeswax):	

Name of the supplier:	
Is the renewable raw material sustainability certified? Yes <input type="checkbox"/> No <input type="checkbox"/>	
If yes, state the raw material sustainability certification system:	
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)	
No traceability	<input type="checkbox"/>
Identity preserved	<input type="checkbox"/>
Segregated	<input type="checkbox"/>
Mass balance	<input type="checkbox"/>
Book&Claim	<input type="checkbox"/>

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

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

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

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

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

Appendix 4 Compatibility requirements for bottles, closures and labels (Appendix to O14)

This appendix contains compatibility requirements that promote the recycling of packaging of hand dish wash detergents. These compatibility requirements form part of the requirements for packaging, see requirement O14.

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

For PET bottles, the following applies:

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

For HDPE bottles, the following applies:

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

For PP bottles, the following applies:

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

Appendix 5 Declaration from the manufacturer of the primary packaging

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of hand dish wash detergents.

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

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

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

Labels and shrink film labels	Yes	No
Is there PS and PVC or plastics based on other types of halogenated plastics present in the label? (O16)	<input type="checkbox"/>	<input type="checkbox"/>
Is there paper in the label? (O16)	<input type="checkbox"/>	<input type="checkbox"/>
Is there metal parts in the label such as metallized labels? (O16)	<input type="checkbox"/>	<input type="checkbox"/>
What is the density (g/cm ³) of the label? (see Appendix 5) _____		

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

Appendix 6 Performance test

The purpose of the performance test is to demonstrate the satisfactory ability and capacity of an ecolabelled hand dishwasher detergent. The test procedure compares the test product (subject of the application) and a reference product with respect to cleaning ability and capacity. The use of test results in marketing should be avoided (and only used if the test method is specified in detail). The framework allows for a wide range of test procedures as long as the requirements below are a part of the test procedure. In the test, washing-up may be done by hand or a machine may be responsible for the mechanical work. Alternatively, the test may include no mechanical processing. The test is based on the washing of crockery (e.g. plates).

Framework

The test shall be performed according to the following framework. At least five repetitions must be performed in which the test and reference products are compared with one another. Each repetition shall comprise two subtests – one for the test product and one for the reference product. The reference product and the test product shall be anonymous to the tester.

The elements and stages included in each repetition must be decided in advance and must be identical for each repetition (e.g. application of soil, processing and possible rinsing). The temperature and relative humidity of the room must be measured and kept reasonably constant in all repetitions (measured at beginning and end of test).

Water test

In addition to the 10 subtests, a further test shall be performed in the same way as the other subtests but that uses water alone (no detergent). The water test shall demonstrate that the chosen test method is suitable for testing the cleaning performance of the hand dishwashing detergent. If the test demonstrates that water cleans equally as well as the hand dishwashing detergents, the test is unsuitable. The water test shall be performed after testing the test product and reference product respectively. The test is to be performed on the same number of plates as the capacity test. For example, if the average capacity of the reference product is 20 plates and that of the test product is 22 plates, 21 plates shall be used for the water test.

Soil selection and preparation

The soil shall primarily consist of animal and vegetable fats. It should also contain proteins and carbohydrates (e.g. egg and flour). This means that soil should primarily contain fats. The origin or chemical composition of the soil must be described in detail (e.g. olive oil or animal fat). The soil must be homogenous and of even consistency. Enough soil for all 11 subtests must be prepared in one batch.

Water

The water hardness and the calcium-magnesium-ratio must be known. The calcium-magnesium-ratio can be determined using deionised/distilled water that is then hardened with known quantities of calcium. The test shall be performed using water of a typical hardness for the area in which the product is to be sold. Justification must be provided for the selection of water hardness.

Water hardness shall be specified in whole German degrees of hardness (°dH).

1°dH = 10 mg CaO or 7.19 mg MgO (0.179 mmol metal ions/litre) or equivalent quantity of other metal oxides per litre of water.

Preparation of washing water

The volume of water must be determined in litres to one decimal point. The same volume of water must be used in all repetitions. The temperature of the water shall be measured in Celsius at the start and must be the same for all repetitions. The temperature shall be measured at the start and end of the washing cycle.

The test and reference detergent shall be dosed according to the lowest dosage recommended for each product respectively. The dosage shall be measured to one decimal point and shall be the same in all repetitions. The detergent must be mixed and completely dissolved in the water.

Test procedure

The quantity of soil must be weighed in grams (or smaller unit) to two significant figures for each repetition.

The soil shall be introduced in the same way in each repetition via the crockery to be washed. All processing shall be performed in a predetermined, controlled fashion for all tests, preferably with 20 circular movements on the front and 6 circular movements on the back of the plates. If a different method of processing is used, a description and justification of this must be provided.

Assessment of cleaning capacity

The test must be capable of generating results that provide a measure of capacity, i.e. how long the dishwashing detergent lasts. The test is then stopped at predetermined conditions. The recommended conditions are when there is no more foam but other indicators may be used. If a different indicator than “no foam” is chosen, this must be described and justified. The number of plates is determined when the predetermined conditions are reached. Either the total number of plates or the number of clean plates can be counted.

Assessment of cleaning ability

The test must be capable of generating results that provide a measure of cleaning ability. This may be through visual, optical, gravimetric or some other relevant method of analysis. The method of analysis and units of measure shall be determined in advance and specified. Visual inspection can be performed using a rating scale.

The following rating scale can be used. Evaluation shall be performed by two people using the same lighting conditions (preferably a 1000-1500 lux lamp). Both the front and reverse of the plate shall be evaluated together:

5 = Completely clean

4= 1-10 small fat droplets/spots with a maximum combined surface area of 4 mm²

3= More than 10 small fat droplets/spots with a combined surface area of 4-50 mm²

2 = Fatty coating of 50-200 mm²

1 = Fatty coating of more than 200 mm²

Results

The cleaning ability and capacity of the reference product and test product shall be documented for each test repetition. A positive result of a test round is obtained when the cleaning ability and capacity is as good or better for the test product compared with the reference product.

The test product is considered to have fulfilled the performance requirements when positive results are obtained in at least 80 % of the test rounds (e.g. 4 out of 5). As an alternative, the applicant may use statistical methods and demonstrate with a one-sided 95 % confidence range that the test product is as good as or better than the reference product in at least 80% of test rounds.

Documentation

The entire test shall be reported in accordance with the framework specified above. The report must contain the following points:

- Specification of the temperature and humidity in the test room and details describing how the test person(s) ensured that these conditions were kept constant in all repetitions.
- Description of the composition of the soil and of the procedure used to ensure that the soil was of a homogenous and even consistency.
- Specification of the hardness of the water, and how it was achieved, and specification of the calcium-magnesium ratio.
- Specification of the quantity of water used in each part of the test.
- Water temperature at the start and end of the test.
- Specification of the results of the weighing of the hand dishwashing detergent (test product and reference product) in each repetition and description of the procedure for dissolving the product in the water.
- Specification of the results of the weighing of the soil in each repetition and a description of how the procedure for apply the soil to the plates.
- Description of how the products are kept anonymous from the test individuals.
- Description of the other steps and stages in each individual repetition.
- Description of how cleaning capacity is evaluated/determined.
- Description of how cleaning ability is measured and/or evaluated.
- The partial results from all five repetitions stated in terms of cleaning capacity and ability, including all raw data.
- Results of the water test in which no detergent was used.
- Final results based on this raw data (and, if applicable, a statistical evaluation of the data).