

Nordic Ecolabelling for
Dishwasher detergents for professional use



Version 3.0 • 23 March 2021 – 23 May 2021

Consultation proposal

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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 dishwasher detergent for professional use?

Tough requirements concerning chemicals and packaging ensure that Nordic Swan Ecolabelled dishwasher detergents for professional use reduce the impact on our environment.

Nordic Swan Ecolabelled dishwasher detergents for professional use:

- Meet strict requirements regarding environmentally hazardous chemicals, including requirements targeting ecotoxicity and degradability.
- Comply with tough requirements relating to chemicals that are harmful to health, including a ban on substances that are classified as carcinogenic, mutagenic or reprotoxic. And various specifically problematic substances such as suspected endocrine disruptors on lists from the EU and National authorities.
- Do not contain fragrances.
- Are effective.
- Have packaging that contributes to a circular economy, not least through its design and material choices, with larger packaging being reused.

Why choose the Nordic Swan Ecolabel?

- The licensee 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 ski wax 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 covers not only 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?

Complete dishwasher detergents, multi-component systems, drying agents and soaking agents for professional use in institutional and large-scale kitchens can be Nordic Swan Ecolabelled.

The criteria also cover products used for instrument cleaning in healthcare (products for washer disinfectors and disinfection machines).

Professional products are defined as products used in machines that have a wash cycle of maximum 20 minutes, which also includes products intended for hybrid/semiprofessional machines. Products used for instrument cleaning in healthcare may be used in machines that have a wash cycle of maximum 30 minutes. There is no maximum time for soaking agents.

Dishwasher detergents for specialist machines used in food production, dairies and so on, and products that are entirely or partially sold in supermarkets cannot be Nordic Swan Ecolabelled in line with these criteria.

How to apply

Application and costs

For information about the application process and fees for this product group, please refer to the respective national website. 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
- ℙ 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.

Licence 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 requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled dishwasher detergents for professional use. 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.

Foil and film that is not removed before use of the product is considered part of the formulation.

O1 Description of the product

The applicant must provide the following information about the product:

- Description of the product's area of use.
- Description of the constituent products if it is a multicomponent system.
- The product's volume or weight.
- All trade names if the product is sold in multiple countries.

☒ Description of the product in line with Appendix 1.

☒ Copy of label and/or product sheet can be sent in as part of the documentation.

O2 Formulation

The applicant must provide a complete formulation for the product. With multicomponent systems, the formulation must be given for all the separate components. The formulation must contain the information below for each ingoing raw material. If a raw material contains two or more substances, each substance must be declared.

- Trade name
- Chemical name of main component and any additives (e.g. colourants, preservatives and stabilisers)

- Amount (both with and without solvents, e.g. water)
- CAS no. / EC no.
- Function
- DID number* for substances that may be placed on the DID list

* *The DID number is an ingredient's number on the DID list, version 2016 or later, which is used when calculating chemical requirements. The DID list can be obtained from Nordic Ecolabelling's websites, see addresses on page 3.*

- ☒ The complete formulation of the product as set out in the requirement. Nordic Ecolabelling's calculation sheet must be used. It is available from Nordic Ecolabelling's websites.
- ☒ Safety data sheet for each raw material in line with prevailing European legislation (Annex II to REACH (Regulation 1907/2006/EEC)).

03 Classification of the product

The product must not have a classification listed in Table 1.

Please note that the producer is responsible for the classification.

Table 1 **Classification of the product**

CLP Regulation 1272/2008:		
Hazard statement	Hazard class and category	Hazard statement code
Toxic to aquatic life	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 4	H400 H410 H411 H412 H413
Hazardous to the ozone layer	Ozone	H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
May cause genetic defects*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox. 1 or 2 Acute Tox. 1 or 2 Acute Tox. 1 or 2 Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Acute Tox. 4 Acute Tox. 4 Acute Tox. 4	H300 H310 H330 H301 H311 H331 H302 H312 H332 <i>Exception: Products whose packaging is designed so that the user cannot come into contact with the product may be classified as H302, H312 and/or H332.</i>
Specific target organ toxicity: single exposure and repeated exposure	STOT SE 1 STOT SE 2 STOT RE 1 STOT RE 2	H370 H371 H372 H373

Skin corrosion or irritation	Skin Corr. 1A, 1B or 1C	H314 <i>Exception:</i> <ul style="list-style-type: none"> Automatically dosed products may be classified as H314. Manually dosed soaking agents may be classified as H314 if the following conditions are met: <ul style="list-style-type: none"> The working solution is not corrosive at the highest recommended dose. The product is sold with a dosing pump or is connected via a product hose to a water source that mixes the product into a working solution. The pump must be designed so that it gives the right dose and minimises the risk of exposure. The product does not need to be sold with a pump if the pack is ≤ 1 litre and has a childproof closure in line with ISO 9327:2004.
Aspiration hazard	Asp. Tox. 1	H304
Airway or skin sensitising	Resp. Sens. 1, 1A or 1B Skin sens. 1, 1A or 1B	H334 H317

* Including all combinations of stated exposure routes and stated specific effect.
For example, H350 also covers classification H350i.

- ☒ Safety data sheet for the product in line with prevailing European legislation (Annex II to REACH (Regulation 1907/2006/EEC)).
- ☒ Appendix 2 for the product or equivalent certification duly completed and signed.
- ☒ If an exception is made for H302, H312 and/or H332: Documentation confirming the packaging is designed so that the user cannot come into contact with the product.
- ☒ If an exception is made for H314: Confirmation that the product is dosed automatically or is a manually dosed soaking agent where the working solution, at the highest recommended dose, is not corrosive. Documentation confirming that the product is sold together with a dosing pump (that is designed to deliver the correct dose and minimises the risk of exposure) or is connected via a product hose to a water source that mixes the product into a working solution.

2 Requirements concerning ingoing substances

O4 Certified raw materials from oil palms

Palm oil, palm kernel oil and derivatives of palm oil or palm kernel oil must have RSPO certification. The approved traceability systems are Mass Balance, Segregated or Identity Preserved.

The requirement does not apply to raw materials that make up < 1% of the product.

- ☒ Declaration from the raw material producer that no palm oil, palm kernel oil or palm oil/palm kernel oil derivatives are present in the raw material, Appendix 3 may be used.
- ☒ A valid RSPO Supply Chain certificate from the raw material's producer or supplier.
- ☒ The manufacturer of a Nordic Swan Ecolabelled product must be able to demonstrate, via the raw material supplier's invoices or delivery notes, that the purchased palm oil is certified, and confirm the traceability system used (Mass Balance, Segregated and Identity Preserved are accepted).

05 Classification of ingoing substances

The ingoing substances must not have a classification listed in Table 2.

Table 2 **Classification of ingoing substances**

CLP Regulation 1272/2008:		
Hazard statement	Hazard class and category	Hazard code
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351**
May cause genetic defects*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Respiratory or skin sensitising*	Resp. Sens. 1, 1A or 1B Skin sens. 1, 1A or 1B	H334 H317

* Including all combinations of stated exposure routes and stated specific effect.
For example, H350 also covers classification H350i.

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

*** Exemptions from the classification:

- Preservatives. Note that MI (methylisothiazolinone, CAS no. 2682-20-4) must not be present in the product according to requirement O9.
- Enzymes (including stabilisers in the enzyme raw material).

Note that, under this requirement, titanium dioxide is prohibited in solid mixtures (e.g. in enzymes) from 1 October 2021.

- ☒ Safety data sheet for each raw material in line with prevailing European legislation (Annex II to REACH (Regulation 1907/2006/EEC)).
- ☒ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

06 Enzymes

Enzymes may only be present in the product in liquid form or as encapsulated granules.

- ☒ Declaration from the enzyme manufacturer or information on safety data sheet/product data sheet.

O7 Surfactants

All surfactants must be:

a) Readily biodegradable according to test method no. 301 A–F in the OECD guidelines for testing of chemicals or other scientifically accepted testing methods if the test result is assessed by an independent body and verified by Nordic Ecolabelling.

b) Anaerobically degradable in accordance with ISO 11734, ECOTOC no. 28, OECD 311 or other scientifically accepted testing methods if the test result is assessed by an independent body and verified by Nordic Ecolabelling, with at least 60% degradability under anaerobic conditions.

- ☒ Reference to the DID list, version 2016 or later. For substances not on the DID list, or where data on the DID list is missing, the associated documentation must be submitted. See Appendix 4 for test methods and analysis laboratories.

O8 Water-soluble films

All water-soluble films (e.g. PVA films) used in dishwasher detergents must be readily biodegradable according to test method no. 301 A–F in the OECD guidelines for testing of chemicals or other scientifically accepted testing methods if the test result is assessed by an independent body and verified by Nordic Ecolabelling.

The test must be performed on the actual film that is supplied to the manufacturer of the dishwasher detergent.

- ☒ Test report documenting the film's biodegradability, conducted by a certified test laboratory in line with Appendix 4.

O9 Substances prohibited from products

The following substances are excluded from use in products:

- Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)
- Antimicrobial or disinfecting ingredients added for purposes other than preservation
- Benzalkonium chloride
- Borates and perborates
- DADMAC (dialkyldimethylammonium chloride)
- DTPA (diethylenetriamine pentaacetate)
- EDTA (ethylenediaminetetraacetic acid) and its salts
- Phosphates
- Endocrine disruptors (whether potential or identified) according to one of the following lists:
 - 1) The European Commission's list of substances to be prioritised for evaluation of endocrine disrupting properties, categories 1 and 2.
https://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L Updated ranked priority list, page 238)
 - 2) The EU member state initiative "Endocrine Disruptor Lists", Lists I, II and III.
 - <https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu>

- <https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption>
- <https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities>
- LAS (linear alkylbenzene sulphonates)
- MI (methylisothiazolinone acid, CAS no. 2682-20-4)
- Microplastics

Microplastics are defined here as particles of insoluble macromolecular plastic less than 5 mm in size, achieved through one of the following processes:

a) Polymerisation, such as polyaddition or polycondensation, or a similar process that uses monomers or other precursors.

b) Chemical change of natural or synthetic macromolecules.

c) Microbial fermentation.

Note that foils and films that enclose tablets and that generate microplastics must not be present in Nordic Swan Ecolabelled products.

Note that Nordic Ecolabelling follows the ECHA's restriction proposal and its definition, and we reserve the right to change the definition above once the definition in the restriction proposal has been fixed. An appropriate transition period will be granted.

- Nanomaterials/particles

Nanomaterials are defined in accordance with the European Commission's definition of nanomaterials (2011/696/EU): "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 1–100 nm." Examples include ZnO, TiO₂, SiO₂ and Ag. Polymer emulsions are not considered to be a nanomaterial.

- NTA (nitrilotriacetic acid) and its salts

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

- Organic chlorine compounds and hypochlorites

Exception: Preservatives may contain organic chlorine compounds.

- Fragrances

- 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, plus substances that have not yet been investigated but that meet these criteria.

- Substances categorised as Substances of Very High Concern (SVHC) and included on the Candidate List: <https://echa.europa.eu/candidate-list-table>.

☒ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

3 Dosing, ecotoxicity and biodegradability

The requirements in this chapter are based on the highest recommended dosing stated on the product label or accompanying product sheet, regardless of water hardness and degree of soiling.

O10 Maximum dosing

Dishwasher detergents and soaking agents may have a maximum dosing of 8.0 grams per litre of water.

Drying agents may have a maximum dosing of 4.0 grams per litre of water.

☒ Copy of label and/or product sheet stating the recommended dosing.

O11 Long-term environmental effects

The product's content of substances which are classified* with hazard code H410, H411 or H412 is limited as follows:

$$100 \cdot C_{H410} + 10 \cdot C_{H411} + C_{H412} \leq 0.40 \text{ grams/litre water, where}$$

C_{H410} = concentration of substances with H410 in grams/litre of water

C_{H411} = concentration of substances with H411 in grams/litre of water

C_{H412} = concentration of substances with H412 in grams/litre of water

The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet, regardless of water hardness and degree of soiling.

Surfactants classified as H412 are exempted from the requirement on the condition that they are readily biodegradable** and anaerobically biodegradable***.

Subtilisin classified as Aquatic Chronic 2 (H411) is exempt from the requirement.

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.

** Note that in order to assess the classification, all the available data must have been evaluated, including data in ECHA databases.*

*** 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, document in accordance with test method no. 301 A–F in the OECD guidelines for testing of chemicals or other scientifically accepted testing methods if the test result is assessed by an independent body and verified by Nordic Ecolabelling.*

**** 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, document in accordance with*

ISO 11734, ECOTOC no. 28, OECD 311 or other scientifically accepted testing methods if the test result is assessed by an independent body and verified by Nordic Ecolabelling, with at least 60% degradability under anaerobic conditions.

- ☒ Calculation of the product's content of substances which are classified with hazard code H410, H411 or H412. Nordic Ecolabelling's calculation sheet must be used. It is available from Nordic Ecolabelling's websites.
- ☒ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.
- ☒ Report on surfactants that are to be exempted from the requirement (quantity, classification, biodegradability).

O12 CDV

The product's critical dilution volume (CDV) must not exceed the maximum values stated in Table 3.

Table 3 **CDV threshold value**

Product type	CDV _{chronic}
Dishwasher detergents and soaking agents	1500 litres/litre water
Products used to clean instruments in healthcare	3000 litres/litre water
Drying agents	1500 litres/litre water

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

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

dose_i = the constituent volume of each individual substance "i", in grams/litre of working solution

DF_i = biodegradation 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.

The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet, regardless of water hardness and degree of soiling.

- ☒ Reference to the DID list, version 2016 or later. For substances not on the DID list, the parameters must be calculated based on the guidance in part B of the DID list, and the related documentation must be submitted.
- ☒ Calculation of product's CDV_{chronic}. Nordic Ecolabelling's calculation sheet must be used. It is available from Nordic Ecolabelling's websites.
- ☒ Appendix 3 for all raw materials or equivalent certification duly completed and signed.

O13 Biodegradability – aerobic and anaerobic (aNBO and anNBO)

The product's total content of organic substances that are either not aerobically biodegradable (aNBO) or not anaerobically biodegradable (anNBO) must not exceed the threshold values stated in Table 4.

Table 4 Threshold values for aNBO and anNBO

Product type	aNBO	anNBO
Dishwasher detergents and soaking agents	0.15 g/litre water	0.20 g/litre water
Products used to clean instruments in healthcare	0.15 g/litre water	0.20 g/litre water
Drying agents	0.04 g/litre water	0.04 g/litre water

The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet, regardless of water hardness and degree of soiling.

Note that all surfactants must be aerobically and anaerobically biodegradable under requirement O7.

See also the exemption from the requirement of anaerobic biodegradability for substances which are not surfactants (Appendix 4, item 6, Anaerobic biodegradability).

- ☒ Reference to the DID list, version 2016 or later. For substances not on the DID list, the parameters must be calculated based on the guidance in part B of the DID list, and the related documentation must be submitted.
- ☒ Calculation of the product's content of organic substances that are either not aerobically biodegradable (aNBO) or not anaerobically biodegradable (anNBO). Nordic Ecolabelling's calculation sheet must be used. It is available from Nordic Ecolabelling's websites.

O14 Phosphonates/phosphonic acids

The product's content of phosphonates/phosphonic acids must not exceed the maximum values stated in Table 5.

Table 5 Threshold values for content of phosphonates/phosphonic acids

Product type	Phosphonates/phosphonic acids
Dishwasher detergents and soaking agents	0.01 g/litre water
Products used to clean instruments in healthcare	0.01 g/litre water
Drying agents	0.006 g/litre water

The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet, regardless of water hardness and degree of soiling.

- ☒ Calculation of the product's content of phosphonates/phosphonic acids. Nordic Ecolabelling's calculation sheet must be used. It is available from Nordic Ecolabelling's websites.

4 Packaging and user information

Packaging, plastic, and recycling of plastic is a focus area in society today. Nordic Ecolabelling wants to set strict requirements on packaging to ensure good possibilities for material recovery and circular economy.

The packaging requirements target the primary packaging* (e.g. container, closure, label). Only the packaging types described in criterion O15-O17 can currently be used. If you are interested in another packaging type, please contact Nordic Ecolabelling to find out whether the criteria can be extended to include your format.

Foil and film that is not removed before use of the product is considered part of the formulation and not as packaging.

**In accordance with EU Directive 94/62/EC on packaging and packaging waste, the term "primary packaging" is defined as consumer packaging, i.e. packaging conceived so as to constitute a sales unit to the final user or consumer at the point of sale.*

O15 Rigid plastic packaging: Design for recycling

Primary packaging smaller than 200 litres must have a design that enables material recovery.

Container means bottle, box, can etc.

Closure means cap, lid, pump, spout, dosing device, oblate, seal etc.

Label means "traditional label", shrink film label/sleeve, direct print etc. (see O16 for details on label requirements).

- The packaging must contain at least 90% plastic (polyethylene (PE), polypropylene (PP) or polyethylene terephthalate (PET)).
- The individual components of the container and closure must be made from monomaterial of either polyethylene (PE), polypropylene (PP) or polyethylene terephthalate (PET).

Exemption:

- *Thermoplastic elastomer (TPE) based on styrene-ethylene-butylene-styrene thermoplastic elastomer (SEBS) is allowed as membranes in squeeze-bottle closures made of PE or PP.*
- *Oblate and seals may be made of aluminum and paper if they are separable from the container or closure.*
- It is not allowed to add pigments to PET. Coloured, recycled PET-granulate where the pigment originates from the recycled material is allowed.
- Carbon black pigments must not be added to container or closure.
- Fillers (such as CaCO₃) must not be included in PE or PP containers or closures at a level that the density of the plastic exceeds 0.995g / cm³.
- Barriers are not allowed in plastic packaging.
- Metal must not be part of the container or closure.
- Silicone is not allowed in closures.

- ☒ Packaging specifications (including all components as container and closure, label etc.) or certificate showing the materials used, component weights and

which pigments have been added. Appendix 5 can be used as part of the documentation.

- ☒ Documentation showing that the density limit is not exceeded.

O16 Labels for rigid plastic packaging: Design for recycling

Label means "traditional label", shrink film label/sleeve, direct print etc.

- Containers in polyethene (PE) and polypropylene (PP), must have a label label with the same plastic material as the packaging (i.e. PE-label on PE packaging and PP-label on PP packaging).
- Packaging in polyethylene terephthalate (PET) must have a label of a different plastic material, with a density < 1.0 g/ cm³.
Note: For the time being, cPET labels are not allowed. Nordic Ecolabelling will consider to allow cPET-labels with the appropriate specifications, if cPET labels become endorsed by EPBP (The European PET Bottle Platform) for PET bottles and/or by RecyClass (www.recyclclass.eu).
- PET-G (polyethylene terephthalate glycol modified), polyvinyl chloride (PVC) and other halogenated plastics must not be used in labels.
- Paper labels must not be used.
- Metallized labels/shrink film labels are not permitted.
- For labels of different material than the packaging (PET containers): Labels must not cover more than 60% of the container. The calculation of the percentage shall be based on the two-dimensional profile of the container i.e. the area of the top and bottom of the packaging and the sides of a box/ container/bottle/can shall not be included in the calculation. If the label on the front of pack and back of pack are of different size, the maximum percentage of 60% shall be fulfilled for each side separately. For a cylindrical bottle, the calculation can also be based on the three-dimensional profile exclusive bottom and top of the bottle.
- Direct print on the container is not permitted except for date codes, batch codes and UFI (Unique Formula Identifier).

- ☒ Label specifications showing the material used and density. Appendix 5 Declaration from the manufacturer(s) of the packaging can be used as part of the documentation.
- ☒ Declarations that PET-G, PS, PVC and other halogenated plastics, paper, aluminium and other metals have not been used. Appendix 5 can be used.
- ☒ For labels of different material than the packaging (PET containers): Calculation of label size compared to the surface of the container.
- ☒ Declaration from the applicant that direct print is not used except for date codes, batch codes and UFI (Unique Formula Identifier). Appendix 2 can be used.

O17 Reuse of packaging

The licensee must take responsibility for ensuring that primary packaging in sizes of 200 litres or more is taken back from the customer and reused until it no longer meets any UN labelling requirements, is broken or cannot be used again for some other reason.

- ☒ Description of how the packaging is taken back from the customer and how it is reused.

O18 Paper-based packaging for solid products: Design for recycling

1. Cardboard packaging

- Cardboard packaging for solid products must contain at least 90% paper/paperboard.
- A minimum of 90% by weight of the wood raw material that is used in the paper/cardboard must be made of post-consumer/commercial recycled material (PCR)*.
- The remaining proportion of wood raw material (that is not PCR) must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).
- Two-sided plastic laminate is not permitted.
- PVC or plastic based on other types of halogenated plastics must not be used in the packaging (container and closure).
- Aluminium and other metals must not be used in the packaging (container and closure).
- Labels are not permitted.
- Direct printing on the packaging must be done with water-based inks.

2. Corrugated board packaging

- Corrugated board packaging for solid products must contain at least 90% paper/paperboard.
- A minimum of 70% by weight of the wood raw material that is used in the paper/cardboard must be made of post-consumer/commercial recycled material (PCR)*.
- The remaining proportion of wood raw material (that is not PCR) must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).
- Two-sided plastic laminate is not permitted.
- PVC or plastic based on other types of halogenated plastics must not be used in the packaging (container and closure).
- Aluminium and other metals must not be used in the packaging (container or closure).
- Labels are not permitted.
- Direct printing on the packaging must be done with water-based inks.

** Post-consumer/commercial recycled material is defined in the requirement according to ISO 14021:2016:*

"Post-consumer/commercial" is defined as material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.



Description of the packaging from the packaging producer showing:

- percentage (by weight) of paper/paperboard material, and percentage of PCR in wood raw material
- percentage (by weight) of any barrier material; material type and description showing whether the barrier is one- or two-sided
- percentage (by weight) of other materials that might be present in elements such as closure, handles etc. and material type.

- Appendix 5 can be used.

- ☐ Declaration that any non-PCR wood raw material is covered by the FSC/PEFC control schemes.
- ☐ Declarations that PVC and other plastic based on other types of halogenated plastics has not been used. Appendix 4 can be used.
- ☐ Declarations that aluminium and other metals has not been used. Appendix 5 can be used.
- ☐ Declarations that water-based inks are used for direct printing. Appendix 5 can be used.

O19 User information

The product's label or accompanying product sheet must include the information below.

- The product's area of use.
- User instructions with recommended dosing (g/l water) for the relevant water hardness in the area where the product will be used.
- The following environmental advice: *Wash at full capacity as far as possible, avoid over/underdosing, use the lowest possible temperature that delivers a hygienic wash.*
- How the packaging should be sorted/recycled in each Nordic country in which it is sold. The Nordic-wide pictogram system from 2020 must be used*.

Exception: Plastic packaging that holds 200 litres or more.

* The pictograms can be found at:

<https://danskaffaldsforening.dk/the-danish-pictograms-waste-sorting>

<https://sortere.no/avfallssymboler>

<https://www.avfallsverige.se/gemensamtskyltsystem/>

- ☐ Copy of label and/or product sheet.

5 Performance

O20 Performance

The product/multicomponent system must perform at least as effectively as equivalent products on the market. The product's efficacy is to be documented in the form of a user test that meets the requirements below:

1. For dishwasher detergents, drying agents and soaking agents: At least eight independent users must test the product for at least four weeks under relevant conditions.

For products used to clean instruments in healthcare: At least five independent users must test the product for at least four weeks under relevant conditions.

2. The product is to be tested at the dose recommended on the packaging label or accompanying product sheet.
3. The product must not be tested in combination with plastic cleaning beads.

4. At least 80% of the users must judge the product to be adequately effective or very effective for all parameters.
 5. The user must fill in Appendix 6. All appendices are to be submitted to Nordic Ecolabelling.
 6. A test report must be drawn up, describing the user test and including a summary of the results.
- ☐ Appendix 6 from all users who have tested the product.
- ☐ Test report describing the user test, including summary of the results.

6 Licence maintenance

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

O21 Customer complaints

The licensee must guarantee that the quality of the Nordic Swan Ecolabelled product or service does not deteriorate during the validity period of the licence. Therefore, the licensee must keep an archive over customer complaints.

Note that the original routine must be in one Nordic language or in English.

- ☐ Upload your company's routine for handling and archiving customer complaints.

O22 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled products in the production. A manufactured/sold product should be traceable back to the occasion (time and date) and location (specific factory) of its production and, in relevant cases, also the machine/production line on which it was produced. In addition, it should be possible to connect the product with the actual raw material used.

You can upload your company's routine or a description of the actions to ensure traceability in your company.

- ☐ Please upload your routine or a description.

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

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

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

Criteria version history

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

Appendix 1 Description of the product / multi-component system

The declaration relates to the following product / multi-component system:

Product name
Multi-component system
Manufacturer
Supplier / importer

The product's area of use:

- ☐ Dishwasher detergent
- ☐ Drying agent
- ☐ Soaking agent
- ☐ Product used for instrument cleaning in healthcare

If it is a multi-component system, describe the products included:

Product volume or weight:

Place and date	Company name / stamp
Person responsible	Signature of responsible individual
Phone	E-mail

Appendix 2 Declaration from the manufacturer of the product

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of dishwasher detergents for professional use. 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: _____

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled dishwasher detergents for professional use. 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.

Foil and film that is not removed before use of the product is considered part of the formulation.

O3 Classification of the product		
Is the product classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.	Yes	No
H400 – Toxic to aquatic life, hazard category 1	<input type="checkbox"/>	<input type="checkbox"/>
H410 – Toxic to aquatic life	<input type="checkbox"/>	<input type="checkbox"/>
H411 – Toxic to aquatic life	<input type="checkbox"/>	<input type="checkbox"/>
H412 – Toxic to aquatic life	<input type="checkbox"/>	<input type="checkbox"/>
H413 – Toxic to aquatic life	<input type="checkbox"/>	<input type="checkbox"/>
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H300 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H310 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H330 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H301 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H311 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H331 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H302 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H312 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H332 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H370 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H371 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H372 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H373 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H314 – Skin corrosion or irritation	<input type="checkbox"/>	<input type="checkbox"/>
H304 – Aspiration hazard	<input type="checkbox"/>	<input type="checkbox"/>
H334 – Respiratory or skin sensitising	<input type="checkbox"/>	<input type="checkbox"/>
H317 – Respiratory or skin sensitising	<input type="checkbox"/>	<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.

O5 Classification of ingoing substances		
Does the product contain substances classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.	Yes	No
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	<input type="checkbox"/>	<input type="checkbox"/>
H317 – Skin sensitising category 1 / 1A / 1B	<input type="checkbox"/>	<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.

O9 Substances prohibited from products		
Does the product contain any of the following substances?	Yes	No
Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)	<input type="checkbox"/>	<input type="checkbox"/>
Antimicrobial or disinfecting ingredients added for purposes other than preservation	<input type="checkbox"/>	<input type="checkbox"/>
Benzalkonium chloride	<input type="checkbox"/>	<input type="checkbox"/>
Borates and perborates	<input type="checkbox"/>	<input type="checkbox"/>
DADMAC (dialkyldimethylammonium chloride)	<input type="checkbox"/>	<input type="checkbox"/>
DTPA (diethylenetriamine pentaacetate)	<input type="checkbox"/>	<input type="checkbox"/>
EDTA (ethylenediaminetetraacetic acid) and its salts	<input type="checkbox"/>	<input type="checkbox"/>
Phosphates	<input type="checkbox"/>	<input type="checkbox"/>
Endocrine disruptors (whether potential or identified) according to one of the following lists: 1) The European Commission's list of substances to be prioritised for evaluation of endocrine disrupting properties, categories 1 and 2. https://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L Updated ranked priority list, page 238) 2) The EU member state initiative "Endocrine Disruptor Lists", Lists I, II and III. https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities	<input type="checkbox"/>	<input type="checkbox"/>
LAS (linear alkylbenzene sulphonates)	<input type="checkbox"/>	<input type="checkbox"/>
MI (methylisothiazolinone acid, CAS no. 2682-20-4)	<input type="checkbox"/>	<input type="checkbox"/>

<p>Microplastics</p> <p><i>Microplastics are defined here as particles of insoluble macromolecular plastic less than 5 mm in size, achieved through one of the following processes:</i></p> <p><i>a) Polymerisation, such as polyaddition or polycondensation, or a similar process that uses monomers or other precursors.</i></p> <p><i>b) Chemical change of natural or synthetic macromolecules.</i></p> <p><i>c) Microbial fermentation.</i></p> <p><i>Note that foils and films that enclose tablets and that generate microplastics must not be present in Nordic Swan Ecolabelled products.</i></p> <p><i>Note that Nordic Ecolabelling follows the ECHA's restriction proposal and its definition, and we reserve the right to change the definition above once the definition in the restriction proposal has been fixed. An appropriate transition period will be granted.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Nanomaterials/particles</p> <p><i>Nanomaterials are defined in accordance with the European Commission's definition of nanomaterials (2011/696/EU): "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 1–100 nm." Examples include ZnO, TiO₂, SiO₂ and Ag. Polymer emulsions are not considered to be a nanomaterial.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>NTA (nitrilotriacetic acid) and its salts</p> <p>Exception: Complexing agents of the MGDA and GLDA type may contain NTA impurities in the raw material in concentrations of less than 0.2%, if the concentration of NTA in the product is below 0.1%.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Organic chlorine compounds and hypochlorites</p> <p>Exception: Preservatives may contain organic chlorine compounds.</p>	<input type="checkbox"/>	<input type="checkbox"/>
Fragrances	<input type="checkbox"/>	<input type="checkbox"/>
Organiska klorföreningar och hypokloriter	<input type="checkbox"/>	<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, plus substances that have not yet been investigated but that meet these criteria.	<input type="checkbox"/>	<input type="checkbox"/>
Substances categorised as Substances of Very High Concern (SVHC) and included on the Candidate List: https://echa.europa.eu/candidate-list-table .	<input type="checkbox"/>	<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.

O11 Long-term environmental effects	Yes	No
Does the product contain any substances classified as harmful to the environment with the risk code H400, H410, H411 or H412? Note that in order to assess the classification, all the available data must have been evaluated, including data in ECHA databases.	<input type="checkbox"/>	<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.

O16 Labels for rigid plastic packaging: Design for recycling	Yes	No
Is there any direct print on the container except for date codes, batch codes and UFI (Unique Formula Identifier)?	<input type="checkbox"/>	<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 Ecolabelling.

Place and date	Company name / stamp
Person responsible	Signature of responsible individual
Phone	E-mail

Appendix 3 Declaration from the manufacturer of the raw material to dishwasher detergents for professional use

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of dishwasher detergents for professional use.

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 raw material: _____

Function of raw material: _____

Please note that the information in this declaration is internally shared with certification personnel in Nordic Ecolabelling to be used in evaluation of applications of chemical technical products.

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled dishwasher detergents for professional use. 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.

Foil and film that is not removed before use of the product is considered part of the formulation.

Ingoing substances in the raw material (chemical name, CAS no., quantity in wt%):

Proposed DID nos. for the raw material including all ingoing substances:

O5 Classification of ingoing substances		
Does the raw material contain substances classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.	Yes	No
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	<input type="checkbox"/>	<input type="checkbox"/>
H317 – Skin sensitising category 1 / 1A / 1B	<input type="checkbox"/>	<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.

O9 Substances prohibited from products		
Does the raw material contain any of the following substances?	Yes	No
Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)	<input type="checkbox"/>	<input type="checkbox"/>
Antimicrobial or disinfecting ingredients added for purposes other than preservation	<input type="checkbox"/>	<input type="checkbox"/>
Benzalkonium chloride	<input type="checkbox"/>	<input type="checkbox"/>
Borates and perborates	<input type="checkbox"/>	<input type="checkbox"/>
DADMAC (dialkyldimethylammonium chloride)	<input type="checkbox"/>	<input type="checkbox"/>
DTPA (diethylenetriamine pentaacetate)	<input type="checkbox"/>	<input type="checkbox"/>
EDTA (ethylenediaminetetraacetic acid) and its salts	<input type="checkbox"/>	<input type="checkbox"/>
Phosphates	<input type="checkbox"/>	<input type="checkbox"/>
Endocrine disruptors (whether potential or identified) according to one of the following lists: 1) The European Commission's list of substances to be prioritised for evaluation of endocrine disrupting properties, categories 1 and 2. https://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L Updated ranked priority list, page 238) 2) The EU member state initiative "Endocrine Disruptor Lists", Lists I, II and III. https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities	<input type="checkbox"/>	<input type="checkbox"/>
LAS (linear alkylbenzene sulphonates)	<input type="checkbox"/>	<input type="checkbox"/>
MI (methylisothiazolinone acid, CAS no. 2682-20-4)	<input type="checkbox"/>	<input type="checkbox"/>
Microplastics <i>Microplastics are defined here as particles of insoluble macromolecular plastic less than 5 mm in size, achieved through one of the following processes:</i> <i>a) Polymerisation, such as polyaddition or polycondensation, or a similar process that uses monomers or other precursors.</i> <i>b) Chemical change of natural or synthetic macromolecules.</i> <i>c) Microbial fermentation.</i> <i>Note that foils and films that enclose tablets and that generate microplastics must not be present in Nordic Swan Ecolabelled products.</i> <i>Note that Nordic Ecolabelling follows the ECHA's restriction proposal and its definition, and we reserve the right to change the definition above once the definition in the restriction proposal has been fixed. An appropriate transition period will be granted.</i>	<input type="checkbox"/>	<input type="checkbox"/>
Nanomaterials/particles <i>Nanomaterials are defined in accordance with the European Commission's definition of nanomaterials (2011/696/EU): "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 1–100 nm." Examples include ZnO, TiO₂, SiO₂ and Ag. Polymer emulsions are not considered to be a nanomaterial.</i>	<input type="checkbox"/>	<input type="checkbox"/>
NTA (nitrilotriacetic acid) and its salts Exception: Complexing agents of the MGDA and GLDA type may contain NTA impurities in the raw material in concentrations of less than 0.2%, if the concentration of NTA in the product is below 0.1%.	<input type="checkbox"/>	<input type="checkbox"/>
Organic chlorine compounds and hypochlorites Exception: Preservatives may contain organic chlorine compounds.	<input type="checkbox"/>	<input type="checkbox"/>
Fragrances	<input type="checkbox"/>	<input type="checkbox"/>
Organiska klorföreningar och hypokloriter	<input type="checkbox"/>	<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, plus substances that have not yet been investigated but that meet these criteria.	<input type="checkbox"/>	<input type="checkbox"/>
Substances categorised as Substances of Very High Concern (SVHC) and included on the Candidate List: https://echa.europa.eu/candidate-list-table .	<input type="checkbox"/>	<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.

O11 Long-term environmental effects	Yes	No
Does the raw material contain any substances classified as harmful to the environment with the risk code H400, H410, H411 or H412? Note that in order to assess the classification, all the available data must have been evaluated, including data in ECHA databases.	<input type="checkbox"/>	<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
Person responsible	Signature of responsible individual
Phone	E-mail

Appendix 4 Test methods and analysis laboratories

1 Requirement for analysis laboratory

The following applies to tests regarding ecotoxic effects and performance tests. The analysis laboratory must be competent and impartial as specified below.

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

To carry out performance tests, the applicant's own laboratory may be approved if the following conditions are met:

- The manufacturer has a quality system that includes sampling and analysis and is certified according to the ISO 9000 series.
- The test method for performance tests must be included in the quality system.
- Nordic Ecolabelling is to be given access to all the raw data from the performance test.

2 Exotoxological test methods

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

3 Acute aquatic toxicity

For acute aquatic toxicity, test methods nos. 201, 202, 203 or 229 in the OECD Guideline for the Testing of Chemicals (ISBN 92-64-1222144) or DIN 38412-33 are to be used. Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

4 Chronic aquatic toxicity

For chronic aquatic toxicity, test method no. 211 (*Daphnia magna*) and 210, 215 or 229 (fish) in the OECD Guideline for the Testing of Chemicals is to be used. Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

OECD 201 (algae) may be used as a chronic test for algae, if chronic endpoints are chosen.

5 Bioaccumulation

If the bioaccumulative properties of a substance can be tested on fish in line with OECD test 305 A-E and its bioconcentration factor (BCF) is > 500 , the substance is considered to be bioaccumulative. If the BCF value is not available, a substance is considered to be bioaccumulative if its $\log K_{ow} \geq 4.0$ according to 107, 117 or 123 in the OECD Guidelines for the Testing of Chemicals (ISBN 92-64-1222144) or equivalent, unless proven to be otherwise. If the highest measured $BCF \leq 500$, the substance is considered to be bioaccumulative even if its $\log K_{ow} \geq 4.0$.

The OECD's test 107 cannot be applied to surfactants which have both fat and water-soluble properties. Based on what is known today, for such substances it must be demonstrated with a high degree of certainty that they and their degradation products do not pose any risk to aquatic organisms over a longer time perspective.

Data models (such as BioWin) are accepted, but if the results of the model calculations are close to the limit values or Nordic Ecolabelling has contradictory data, more certain information may be required.

6 Aerobic degradability

For ready biological degradability, test method no. 301 (A-F) or no. 310 in OECD guidelines for testing of chemicals shall be used.

Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

7 Anaerobic degradability

For anaerobic degradability, ISO 11734, ECETOC no. 28 or OECD 311 shall be used.

Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

For a substance to be considered anaerobic, > 60% mineralisation is required after max 60 days (equates to > 60% ThOD / ThCO₂ or > 70% DOC reduction).

Substances that are not surfactants and are not on the DID list, or for which data on the DID list is lacking, may be exempted from the anaerobic degradability requirement if they are aerobically biodegradable and not toxic to aquatic life (lowest chronic median NOEC / EC_x > 0.1 mg / l or acute IC₅₀ / EC₅₀ / LC₅₀ > 10 mg / l), and if one of the following criteria is also met:

- Readily biodegradable and has low adsorption ($A < 25\%$)
- Readily biodegradable and has high desorption ($D > 25\%$)
- Readily biodegradable and not potentially bioaccumulative

To determine adsorption / desorption, use method 106 in the OECD Guidelines or ISO CD 18749 "Water quality – Adsorption of substance activated sludge".

8 DID list

The DID list is a common list for the EU Ecolabel and Nordic Ecolabelling. The list is drawn up in collaboration with stakeholders both from consumer and environmental organisations and from industry. It contains information on toxicity and biodegradability for a number of substances that might be used for products in the chemical technical field. The substances on the DID list are not an expression of the substances that are contained in ecolabelled products.

The DID list cannot be used to document the toxicity of the individual substances in connection with the classification rules. Here, information from safety data sheets, literature or the raw materials producer must be used.

The separate DID list can be requested from the ecolabelling organisation or via the website for the respective country, see page 3 of the criteria document.

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

Calculation sheets can be used to calculate the critical dilution volume (CDV) in requirement O11. These are available from Nordic Ecolabelling and can be downloaded from all of the Nordic secretariats' websites.

If data for chronic toxicity is not available, acute data and the associated safety factor may be used to estimate the chronic toxicity factor. If a substance is not included on the DID list, or if data is lacking on the DID list, the method in part B of the DID list must be used.

Appendix 5 Packaging

The appendix is produced after consultation.

Appendix 6 Form for user test

This appendix must be filled in by the user.

The declaration relates to the following product / multi-component system:

Product name
Multi-component system
Manufacturer

Dosing during the test (grams / litre of working solution):

Recommended dosing as stated on the label / packaging (grams / litre of working solution):

Test period (minimum two months):

The product's ability to remove dirt from dishes:

☐ Not effective

☐ Adequately effective

☐ Very effective

The product's ability to dry the dishes:

☐ Not effective

☐ Adequately effective

☐ Very effective

The product's ability to counteract limescale deposits on dishes and dishwashers:

☐ Not effective

☐ Adequately effective

☐ Very effective

Place and date	Company name / stamp
User's name	User's signature
Phone	E-mail