Nordic Ecolabelling for

Dishwasher detergents for professional use

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Nordic Ecolabelling

Content

080 Dishwasher detergents for professional use, version 3.10, 02 December 2025

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

Contact information

In 1989, the Nordic Council of 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:

Denmark
Ecolabelling Denmark
www.svanemaerket.dk

Finland
Ecolabelling Finland
www.joutsenmerkki.fi

Sweden
Ecolabelling Sweden
www.svanen.se

Iceland
Ecolabelling Iceland
www.svanurinn.is

Norway
Ecolabelling Norway
www.svanemerket.no

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 identified and potential endocrine disruptors on up-to-date lists from 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 the licensee 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, rinse aids 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 inlcuded other tools and equipment 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.

Products that cannot be Nordic Swan Ecolabelled in line with these criteria are dishwasher detergents for specialist machines used in food production, dairies and so on, and products that are entirely or partially sold in supermarkets. For these products, see criteria for Nordic Ecolabelling of Cleaning Agents for use in the Food Industry and Dishwasher Detergents and Rinsing Agents.

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. See contact information in the beginning of this document.

What is required?

The application must be created in the Nordic Ecolabelling Portal.

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.

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 contact information in the beginning of this document. 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.

Note: Any component of the product that enters the dishwasher machine and eventually goes down the drain, is considered as part of the formulation/recipe (e.g., water-soluble film, print on film etc.).

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 no.* 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 that is compiled in accordance with current European legislation (Annex II to REACH, Regulation (EC) No 1907/2006).

O3 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	**Hazard class and category**	**Hazard 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. 4 Acute Tox. 4 Acute Tox. 4	H300 H310 H330 H301 H311 H331 H302 H312 H332 *Exception: Products whose packaging is designed so that the user cannot encounter the product may be classified as H302, H312 and/or H332.*

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
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 that is compiled in accordance with current European legislation (Annex II to REACH, Regulation (EC) No 1907/2006).

✉ 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.

2 Requirements concerning ingoing substances

O4 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	**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 O8.*
- *Enzymes (including stabilisers in the enzyme raw material).*

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

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

O5 Enzymes

Enzymes may only be present in the product in liquid form or as granulate capsules.

Enzymes in spray products must comply with safe limit for exposure. The exposure limit should be below the Derived No Effect Level, DNEL for consumers and professionals, 15 ng/m³.*

* *Exposure measurements of enzymes for risk assessment of household cleaning spray products (AISE, July 2020).*

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

✉ For enzyme-containing spray products: Risk assessment according to AISE:s ”Exposure measurements of enzymes for risk assessment of household cleaning spray products (AISE, July 2020)”.

O6 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 biodegradable in accordance with ISO 11734, ECETOC No 28, OECD 311 or equivalent testing methods evaluated by an independent body and controlled by Nordic Ecolabelling.

✉ 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.

O7 Water-soluble films

All water-soluble films (e.g., PVA films) for dishwasher detergents must be readily biodegradable according to test method No. 301 A–F or No 310 in OECD guidelines for testing of chemicals. Enhanced biodegradation[1] screening test performed as a modification of OECD 301B or OECD 301F with longer incubation and continued biodegradation measurements up to 60 days is accepted.

The test should be conducted on the total composition of the film. This can either be by testing on the actual water-soluble film or individually on each of the substances in the film.

Existing data for the biodegradability of individual substances and existing data for actual water-soluble films can be used to predict the biodegradation properties of another water-soluble film. This is accepted only if either of the following data is available:

a) When all the substances in the water-soluble film have been tested individually in a biodegradation test, and all the substances comply with the requirements to biodegradability in the criteria, then the water-soluble film can be considered to fulfil requirement O14. Data must be provided for all ingoing substances in the water-soluble film, that are present above 0.1% in the water-soluble film.

[1] See ECHAs Guidance on Information Requirements and Chemical Safety Assessment. Chapter R.7b: Endpoint specific guidance. Version 4.0. June 2017, page 213: https://echa.europa.eu/documents/10162/13632/information_requirements_r7b_en.pdf/1a551efc-bd6a-4d1f-b719-16e0d3a01919 (accessed on 2021-06-15).

OR

b) If two water-soluble films (film 1 and film 2) with a known composition of substances have been confirmed biodegradable according to the above-mentioned test guidelines, the same biodegradability can be assumed for a third product (film 3), if both of the following two conditions are met:
   - The concentrations of the substances in film 3 are within the concentration range covered by film 1 and film 2.
   - Any other substances in film 3, that are not present in film 1 and film 2, have been confirmed biodegradable according to the above-mentioned test guidelines.

✉ Test report(s) documenting the biodegradability of the film, conducted by a certified test laboratory according to Appendix 4.

O8 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, CAS-no. 8001-54-5
- Borates and perborates
- DADMAC (dialkyldimethylammonium chloride), CAS-no. 68424-95-3
- DTPA (diethylenetriamine pentaacetate), CAS-no. 67-43-6
- EDTA (ethylenediaminetetraacetic acid), CAS-no. 13235-36-4, and its salts
- Phosphates
- Potential or identified endocrine disruptors according to any of the EU member state initiative ”Endocrine Disruptor Lists” List 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

   A substance which is transferred to one of the corresponding sublists called “Substances no longer on list”, and no longer appears on any of List I-III, is no longer excluded. The exception is those substances on sublist II which were evaluated under a regulation or directive which doesn’t have provisions for identifying EDs (e.g., the Cosmetics Regulation, etc.). For those substances, ED properties may still have been confirmed or suspected. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated on sublist II.
- LAS (linear alkylbenzene sulphonates)
- MI (methylisothiazolinone), CAS no. 2682-20-4
- Microplastics

  Nordic Ecolabelling has updated the definition of microplastics by adopting the EU definition in the REACH restriction on synthetic

polymer microparticles, which entered into force on 17 October 2023. Either the new or old definition shall be used.

New definition: Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78: Synthetic polymer microparticles: polymers that are solid, and which fulfil both of the following conditions:

a) are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles.

b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions:

(i) all dimensions of the particles are equal to or less than 5 mm.

(ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.

The following polymers are excluded from this designation:

a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances.

b) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].

c) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006].

d) polymers that do not contain carbon atoms in their chemical structure.

N.B. The following "Conditions of restriction" paragraphs apply: 1 (concentration limit in mixtures), 2 (definitions), 3 (particle size limits). The remaining points do not apply, e.g. 4 (Paragraph 1 shall not apply to the placing on the market of:), e.g. 4(a) "synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites", 5 (derogations), e.g. 5 (b) "synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry".

***Old definition:** 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 Nordic Ecolabelling follows the development of 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, TiO_2, SiO_2 and Ag. Polymer emulsions are not considered to be a nanomaterial.

- NTA (nitrilotriacetic acid), CAS-no. 139-13-9 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
- PFAS (per- and polyfluoroalkyl substances)
- 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 Certified raw materials

O9 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 less than 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 can be used.

✉ A valid RSPO Supply Chain certificate from the raw material's producer or supplier.

✉ Invoices or delivery notes from the raw material supplier showing with which traceability system the purchased palm oil is certified (Mass Balance, Segregated and Identity Preserved are accepted).

4 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

The product may have a maximum dosage according to Table 3.

Table 3 **Maximum dosing**

Product type	Maximum dosing
Dishwasher detergents	4 grams / litre water
Soaking agents	50 grams / litre water
Products used to clean instruments in healthcare	8 grams / litre water
Rinse aids	2 grams / litre water
Dishwasher detergents for aluminium goods	4 grams / litre 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:

$100*C_{H410} + 10*C_{H411} + C_{H412} \leq 0.40$ 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.

Hydrogen peroxide classified with H411 or H412 is exempted 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 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 at least 60% degradability under anaerobic conditions 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.*

✉ 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 4.

Table 4 **CDV threshold value**

Product type	$CDV_{chronic}$
Dishwasher detergents	1800 litres / litre water
Soaking agents	1800 litres / litre water
Products used to clean instruments in healthcare	3000 litres / litre water
Rinse aids	3000 litres / litre water
Dishwasher detergents for aluminium goods	3000 litres / litre water

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

$CDV_{chronic} = \sum CDV_i = \sum (dose_i \times DF_i \times 1000 / TF_{i\ chronic})$, 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

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

If $TF_{i\ chronic}$ is lacking, $TF_{i\ acute}$ can be used.

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 or anaerobically biodegradable must not exceed the threshold values stated in Table 5.

Table 5 **Threshold values for aNBO and anNBO**

Product type	aNBO	anNBO
Dishwasher detergents	0,15 g / litre water	0,20 g / litre water
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
Rinse aids	0,040 g / litre water	0,040 g / litre water
Dishwasher detergents for aluminium goods	0,15 g / litre water	0,20 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.

Iminodisuccinate (DID No. 2555) and cumene sulfonates (DID No. 2540) are excluded from the calculation of anNBO.

Polycarboxylates (DID No. 2507 and 2508) are excluded from the calculation of aNBO and anNBO.

Note that all surfactants must be aerobically and anaerobically biodegradable under requirement O6.

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 or anaerobically biodegradable. 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 6.

Table 6 **Threshold values for content of phosphonates/phosphonic acids**

Product type	Phosphonates/phosphonic acids
Dishwasher detergents	0,01 g / litre water
Soaking agents	0,01 g / litre water
Products used to clean instruments in healthcare	0,01 g / litre water
Rinse aids	0,006 g / litre water
Dishwasher detergents for aluminium goods	0,01 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.

5 Packaging and user information

Nordic Ecolabelling sets 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 requirement O15-O18 can currently be used. Bag-in-box packaging must meet the requirements for flexible plastic bags (O17) and rigid plastic packaging (O15) or paper-based packaging (O18) depending on the material of the box. 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.

Note: Any component of the product that enter the dishwasher machine and eventually goes down the drain, is considered as part of the formulation/recipe (eg. water-soluble film, print on film etc.).

* *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, oblate, seal, membrane 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:

  Colored PP packaging components may have up to 5% PE if they come from the masterbatch.

  Membranes, oblates and seals may be made of expanded polyethylene (EPE), expanded polypropylene (EPP), thermoplastic elastomer (TPE) based on styrene-ethylene-butylene-styrene thermoplastic elastomer (SEBS), aluminium, paper and plastic of non-monomaterial (but it must be PE, PP and / or PET).

- It is not allowed to add pigments to PET.

  Exemptions:

  - *Coloured, recycled PET-granulate where the pigment originates from the recycled material is allowed.*
  - *Pigments that are added to UV blockers and that do not make up more than 10 ppm of the container.*
- Carbon black pigments must not be added to container or closure.
- Fillers (such as $CaCO_3$) must not be included in PE or PP containers or closures at a level that the density of the plastic exceeds 0.995g / cm^3.
- Barriers are not allowed in plastic packaging.
- Metal must not be part of the container or closure.

  Exemptions:

  - *Metal springs.*
  - *Metal mesh in lids.*
- Silicone is not allowed in closures.

  Exemption: Lubricant in spray bottle triggers.

  ** Recycled plastic, which is purchased as a type of polymer, e.g. PP, considered monomaterial.*

✉ Packaging specifications (including all components as container and closure, label etc.) or certificate showing the materials used, component weights, density of PE or PP components, whether components contain PCR material and which pigments have been added. Appendix 5 can be used as part of the documentation.

O16 Labels for rigid plastic packaging: Design for recycling

Labels on packages smaller than 200 litres must have a design that enables material recovery.

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

- Containers in polyethene (PE) and polypropene (PP): The following label materials are permitted:
  - Polyolefin plastic labels (PE and PP) as well as PET or PET-G labels with density > 1.0 g/cm^3. For labels of different material than the packaging, the suitability must be substantiated in accordance with Recyclass' Washing quick test procedure. For film labels applied on HDPE & PP containers, version 1.0[2].
  - Paper labels without fibre loss. The suitability must be substantiated in accordance with Recyclass' Washing quick test procedure: For paper labels applied on HDPE & PP containers, standard laboratory practice, version 1.0[3].
- Containers in polyethylene terephthalate (PET) must have a label of a different plastic material, with a density < 1.0 g/cm^3, or a paper label without fibre loss.
  - Paper labels without fibre loss: The suitability must be substantiated in accordance with Recyclass' Washing quick test procedure: For paper labels applied on HDPE & PP containers, standard laboratory practice, version 1.0[4], 3.

  Note: PET-G is not allowed in labels on PET containers. For the time being, cPET labels are also not permitted. Nordic Ecolabelling will consider allowing 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.recyclass.eu).
- Polyvinyl chloride (PVC) and other halogenated plastics must not be used in labels.
- Metallized labels/shrink film labels are not permitted.

  Exception: Metal foil in RFID labels.
- For labels of different material than the packaging: 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 can be used as part of the documentation.

[2] https://recyclass.eu/wp-content/uploads/2021/05/RecyClass-Washing-QT-Procedure-for-Film-Labels-applied-on-HDPE-and-PP-Containers_FINAL.pdf (Accessed on 2021-06-23).
[3] https://recyclass.eu/wp-content/uploads/2021/05/RecyClass-Washing-QT-Procedure-for-Paper-Labels-applied-on-HDPE-and-PP-Containers_FINAL.pdf (Accessed on 2021-06-11).
[4] https://recyclass.eu/wp-content/uploads/2021/05/RecyClass-Washing-QT-Procedure-for-Paper-Labels-applied-on-HDPE-and-PP-Containers_FINAL.pdf (Accessed on 2021-06-11).

✉ If plastic labels of different material than the container is used on PE or PP containers. Test report from a laboratory fulfilling the conditions in Appendix 4, showing that the label is approved.

✉ If paper labels are used: Test report from a laboratory fulfilling the conditions in Appendix 4, showing that the label is approved.

✉ Declarations that PVC and other halogenated plastics, aluminum and other metals have not been used. Appendix 5 can be used.

✉ For labels of different material than the packaging: 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. Appendix 2 can be used.

O17 Flexible plastic pouches: Design for recycling

Flexible plastic pouches must have a design that enables material recovery.

Container means flexible plastic pouches, inclusive spout fixed to the plastic pouch.

Closure means e.g., cap, lid, pump, spout, oblate, seal. Please note that a spout that is fixed to the container, counts as part of the container.

- 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 either PE (polyethylene), PP (polypropylene) or PET (polyethylene terephthalate).

  Exceptions:

  - *O-ring of EPDM or other elastomers is allowed in valves.*
  - *Membranes, oblates and seals may be made of thermoplastic elastomer (TPE) based on styrene-ethylene-butylene-styrene thermoplastic elastomer (SEBS), aluminium, paper and plastic of non-monomaterial (but it must be PE, PP and / or PET).*

- The container must be made of monomaterial, i.e., not laminated with layers of different materials. Barrier coatings can only be of EVOH (ethylene vinyl alcohol) and constitute max 5% of the total weight.

  Exception: Flexible plastic pouches may contain multimaterials of PE, PP, PET and / or PA for a transitional period until 31 December 2026. Flexible plastic pouches requiring UN approval according to the ADR Regulation may consist of multimaterials of PE, PP, PET and / or PA until 31 December 2027.

- Carbon black pigments must not be added to container or closure.
- Fillers (such as $CaCO_3$) must not be included in PE or PP containers or closures at a level that the density of the plastic exceeds 0.995g/cm^3.
- Metal must not be part of the container or closure.

  Exception: Metal springs.

- Silicone is not allowed in closures.

✉ Packaging specifications (including all components as container and closure, label etc.) or certificate showing the materials used, density of PE or PP components and whether carbon black has been added. Appendix 5 can be used as part of the documentation.

O18 Paper-based packaging: Design for recycling

1. Cardboard packaging

- Cardboard packaging 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 recycled material*.
- The remaining proportion of wood raw material (that is not recycled material) must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).
- Two-sided plastic laminate is not permitted.
- Polyvinyl chloride (PVC) and other halogenated plastics must not be used in the packaging (container and / or closure).
- Aluminium and other metals must not be used in the packaging (container and / or closure).
- Paper labels are permitted. Other types of labels are not permitted. The label glue must be water soluble.
- Solid coloured cardboard is not permitted

  Exception: White solid coloured cardboard.

2. Corrugated board packaging

- Corrugated board packaging 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 recycled material*.
- The remaining proportion of wood raw material (that is not recycled material) must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).
- Two-sided plastic laminate is not permitted.
- Polyvinyl chloride (PVC) and other halogenated plastics must not be used in the packaging (container and / or closure).
- Aluminium and other metals must not be used in the packaging (container and / or closure).
- Paper labels are permitted. Other types of labels are not permitted. The label glue must be water soluble.
- Solid coloured cardboard is not permitted.

  Exception: White solid coloured cardboard.

** Recycled material is defined in accordance with ISO 14021 in the following two categories:*

Material in the pre-consumer phase. Material that has been taken from the waste flow during the manufacturing process. The exception is the re-use of material that is generated in a process, e.g. waste that can be recycled within the same process that generated it.

Material in the post-consumer phase. Material generated by households or by trade, industry or institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose. This includes the return of materials from the distribution chain. Description of the packaging from the packaging producer showing:

✉ Description of the packaging from the packaging producer showing:

- percentage (by weight) of paper/paperboard material, and percentage of recycled material 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-recycled wood raw material is covered by the FSC/PEFC control schemes.

✉ Declarations that polyvinyl chloride (PVC) and other halogenated plastics have not been used. Appendix 5 can be used.

✉ Declarations that aluminium and other metals have not been used. Appendix 5 can be used.

✉ If labels are used: Specification from the manufacturer showing that the label is of paper.

✉ If labels are used: Specification from the manufacturer showing that the adhesive is water soluble.

O19 Reuse of packaging

The licensee must either offer to take back primary packaging that is 200 litres or larger or inform the customer that reuse of the packaging is possible via local reuse companies.

✉ If the licensee offers to take back the packaging from the customer: Copy of the offer and a description of how the packaging is taken back and reused.

✉ If the customer is informed about that reuse of the packaging is possible via local reuse companies: Copy of how the information is communicated.

O20 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.*
- For plastic packaging smaller than 200 litres: How the packaging should be sorted for recycling in each Nordic country in which it is sold. The Nordic-wide pictogram system from 2020 can be used*.

** 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.

6 Performance

O21 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, rinse aids, soaking agents and dishwasher detergents for aluminium goods: 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. If the dosage is specified in an interval, at least one test should be performed at the lowest dosage.
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.

7 Licence maintenance

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

O22 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.

O23 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.nordic-swan-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 3.0 of the criteria for Dishwasher detergents for professional use on 25 November 2021. The criteria are valid until 31 December 2026.

On 1 March 2022 Nordic Ecolabelling decided to adjust requirement O21 so that at least one test, instead of all tests, must be performed at the lowest dose if the dose is specified in an interval. The new version is 3.1.

On 29 March 2022 Nordic Ecolabelling decided to adjust requirement O11 by also exempting H411 classified surfactants from the requirement. The new version is called 3.2.

On 1 November 2022 Nordic Ecolabelling decided to increase the percentage of allowed EVOH in flexible plastic pouches from 2 to 5. The new version is called 3.3. On 29 November, 2022, it was decided to extend the transition period regarding monomaterials for flexible plastic bags (pouches) intended for products covered by the ADR Regulation by one year until 31.12.2023. The new version is called 3.3.

Nordic Ecolabelling decided on 31 March 2023 to introduce a time-limited transition period for titanium dioxide in solid mixtures, e.g. in enzymes (O4) until 30 June 2024. The new version is called 3.4.

Nordic Ecolabelling decided on 12 September 2023 that the exception in O15 for membranes, wafers and seals also applies to expanded polyethylene (EPE) and expanded polypropylene (EPP). The new version is called 3.5.

Nordic Ecolabelling decided on 14 November 2023 to extend the validity of the criteria until 31 December 2027. 23 November, the product group definition was adjusted, which means that even products for washing other tools and equipment are included in instrument cleaning. The new version is called 3.6.

Nordic Ecolabelling decided on 19 December 2023 to extend the transition period for materials in flexible plastic bags in requirement O17. This now also applies to non-dangerous goods (non-ADR). The new version is called 3.7.

Nordic Ecolabelling decided on 12 March 2024 to clarify that colored packaging components made of PP may have up to 5% PE if it comes from masterbatch and that recycled plastic, which is bought in as a type of polymer, e.g. PP, considered monomaterial (O15). On April 16, it was decided to extend the transition period for TiO2 in requirements for classification of constituent substances (O4). The new version is called 3.8.

Nordic Ecolabelling decided on 10 December 2024 to prolong the transition period for monomaterial in flexible plastic pouches in requirement O17 with 12 months. The new version is called 3.9.

Nordic Ecolabelling decided on 2 December 2025 to prolong the transition period for monomaterial in flexible plastic pouches in requirement O17 with 12 months until 31 December 2026. Flexible plastic pouches requiring UN approval according to the ADR Regulation may consist of multimaterials of PE, PP, PET and / or PA until 31 December 2027. The new version is called 3.10.

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

Product type:

☐ Dishwasher detergent

☐ Rinse aid

☐ Soaking agent

☐ Product used for instrument cleaning in healthcare

☐ Dishwasher detergent for aluminium goods

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.

Note: Any component of the product that enter the dishwasher machine and eventually goes down the drain, is considered as part of the formulation/recipe (e.g. water-soluble film, print on film etc.).

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	☐	☐
H410 – Toxic to aquatic life	☐	☐
H411 – Toxic to aquatic life	☐	☐
H412 – Toxic to aquatic life	☐	☐
H413 – Toxic to aquatic life	☐	☐
H350 – May cause cancer, hazard category 1A and 1B	☐	☐
H351 – Suspected of causing cancer, hazard category 2	☐	☐
H340 – May cause genetic defects, hazard category 1A and 1B	☐	☐
H341 – May cause genetic defects, hazard category 2	☐	☐
H360 – Toxic for reproduction, hazard category 1A and 1B	☐	☐
H361 – Toxic for reproduction, hazard category 2	☐	☐
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	☐	☐
H300 – Acute toxicity	☐	☐
H310 – Acute toxicity	☐	☐
H330 – Acute toxicity	☐	☐
H301 – Acute toxicity	☐	☐
H311 – Acute toxicity	☐	☐
H331 – Acute toxicity	☐	☐
H302 – Acute toxicity	☐	☐
H312 – Acute toxicity	☐	☐
H332 – Acute toxicity	☐	☐
H370 – Specific target organ toxicity: single exposure and repeated exposure	☐	☐
H371 – Specific target organ toxicity: single exposure and repeated exposure	☐	☐
H372 – Specific target organ toxicity: single exposure and repeated exposure	☐	☐
H373 – Specific target organ toxicity: single exposure and repeated exposure	☐	☐
H304 – Aspiration hazard	☐	☐
H334 – Respiratory or skin sensitising	☐	☐
H317 – Respiratory or skin sensitising	☐	☐

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.

_____

_____

_____

_____

O4 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	☐	☐
H351 – Suspected of causing cancer, hazard category 2	☐	☐
H340 – May cause genetic defects, hazard category 1A and 1B	☐	☐
H341 – May cause genetic defects, hazard category 2	☐	☐
H360 – Toxic for reproduction, hazard category 1A and 1B	☐	☐
H361 – Toxic for reproduction, hazard category 2	☐	☐
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	☐	☐
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	☐	☐
H317 – Skin sensitising category 1 / 1A / 1B	☐	☐

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.

_____

_____

_____

_____

O8 Substances prohibited from products		
Does the product contain any of the following substances?	Yes	No
Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)	☐	☐
Antimicrobial or disinfecting ingredients added for purposes other than preservation	☐	☐
Benzalkonium chloride, CAS-no. 8001-54-5	☐	☐
Borates and perborates	☐	☐
DADMAC (dialkyldimethylammonium chloride), CAS-no. 68424-95-3	☐	☐
DTPA (diethylenetriamine pentaacetate), CAS-no. 67-43-6	☐	☐
EDTA (ethylenediaminetetraacetic acid), CAS-no. 13235-36-4, and its salts	☐	☐
Phosphates	☐	☐
Potential or identified endocrine disruptors according to any of the EU member state initiative “Endocrine Disruptor Lists” List I; II; and/or 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	☐	☐

Substances on the List II sublist “Substances no longer on list”? https://edlists.org/the-ed-lists/substances-no-longer-on-list-ii *If Yes, please write chemical name and Cas no. below. Nordic Ecolabelling will evaluate the circumstances on a case-by-case basis, through the background information indicated for the substance on the sublist.* _____	☐	☐
LAS (linear alkylbenzene sulphonates)	☐	☐
MI (methylisothiazolinone acid), CAS no. 2682-20-4	☐	☐
Microplastics, according to either the new* or the old** definition (you are only required to answer for one of the two definitions): According to the new definition: ☐ According to the old definition: ☐ ***New definition**: Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78: Synthetic polymer microparticles: polymers that are solid, and which fulfil both of the following conditions: a. are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles. b. b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions: i. all dimensions of the particles are equal to or less than 5 mm. ii. the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3. The following polymers are excluded from this designation: a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances. b) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006]. c) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006]. d) polymers that do not contain carbon atoms in their chemical structure. *N.B. The following "Conditions of restriction" paragraphs apply: 1 (concentration limit in mixtures), 2 (definitions), 3 (particle size limits). The remaining points do not apply, e.g. 4 (Paragraph 1 shall not apply to the placing on the market of:), e.g. 4(a) “synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites”, 5 (derogations), e.g. 5 (b) "synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry".* ****Old definition**: Microplastic means particles with a size of below 5 mm of insoluble macromolecular plastic, obtained through one of the following processes: (a) a polymerisation process such as polyaddition or polycondensation or a similar process using monomers or other starting substances; (b) chemical modification of natural or synthetic macromolecules; (c) microbial fermentation.		
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), CAS-no. 139-13-9, and its salts	☐	☐
Fragrances	☐	☐
PFAS (per- and polyfluoroalkyl substances)	☐	☐
Organic chlorine compounds and hypochlorites	☐	☐

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.	☐	☐

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.*	☐	☐

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)?	☐	☐

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.

Note: Any component of the product that enter the dishwasher machine and eventually goes down the drain, is considered as part of the formulation/recipe (eg. water-soluble film, print on film etc.).

Ingoing substances in the raw material/ingredient (chemical name, CAS-number, amount in weight-%):

_____

_____

_____

_____

Function of the raw material/ingredient(s), including all ingoing substances:

_____

_____

_____

_____

Please note that substances that are defined as surfactants according to Detergent Regulation (EC) No 648/2004, must always be reported with the function "surfactant".

Suggested DID-numbers for the raw material/ingredient(s), including all declared ingoing substances (The DID list can be obtained from http://www.nordic-ecolabel.org/product-groups/group/?productGroupCode=017):

_____

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O4 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	☐	☐
H351 – Suspected of causing cancer, hazard category 2	☐	☐
H340 – May cause genetic defects, hazard category 1A and 1B	☐	☐
H341 – May cause genetic defects, hazard category 2	☐	☐
H360 – Toxic for reproduction, hazard category 1A and 1B	☐	☐
H361 – Toxic for reproduction, hazard category 2	☐	☐
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	☐	☐
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	☐	☐
H317 – Skin sensitising category 1 / 1A / 1B	☐	☐

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.

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O8 Substances prohibited from products		
Does the raw material contain any of the following substances?	Yes	No
Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)	☐	☐
Antimicrobial or disinfecting ingredients added for purposes other than preservation	☐	☐
Benzalkonium chloride, CAS-no. 8001-54-5	☐	☐
Borates and perborates	☐	☐
DADMAC (dialkyldimethylammonium chloride), CAS-no. 68424-95-3	☐	☐
DTPA (diethylenetriamine pentaacetate), CAS-no. 67-43-6	☐	☐
EDTA (ethylenediaminetetraacetic acid), CAS-no. 13235-36-4, and its salts	☐	☐
Phosphates	☐	☐
Potential or identified endocrine disruptors according to any of the EU member state initiative “Endocrine Disruptor Lists” List I; II; and/or 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	☐	☐
Substances on the List II sublist “Substances no longer on list”? https://edlists.org/the-ed-lists/substances-no-longer-on-list-ii *If Yes, please write chemical name and Cas no. below. Nordic Ecolabelling will evaluate the circumstances on a case-by-case basis, through the background information indicated for the substance on the sublist.* _____	☐	☐
LAS (linear alkylbenzene sulphonates)	☐	☐
MI (methylisothiazolinone acid), CAS no. 2682-20-4	☐	☐
Microplastics Microplastics, according to either the new* or the old** definition (you are only required to answer for one of the two definitions): According to the new definition: ☐ According to the old definition: ☐ *New definition: Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78: Synthetic polymer microparticles: polymers that are solid, and which fulfil both of the following conditions:		

are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles. b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions: all dimensions of the particles are equal to or less than 5 mm. the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3. The following polymers are excluded from this designation: polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances. polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006]. polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006]. polymers that do not contain carbon atoms in their chemical structure. N.B. The following "Conditions of restriction" paragraphs apply: 1 (concentration limit in mixtures), 2 (definitions), 3 (particle size limits). The remaining points do not apply, e.g. 4 (Paragraph 1 shall not apply to the placing on the market of:), e.g. 4(a) “synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites”, 5 (derogations), e.g. 5 (b) "synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry". **Old definition: *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.*		
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), CAS-no. 139-13-9, and its salts	☐	☐
Fragrances	☐	☐
PFAS (per- and polyfluoroalkyl substances)	☐	☐
Organic chlorine compounds and hypochlorites	☐	☐
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.	☐	☐

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.

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O9 Certified raw materials from oil palms	**Yes**	**No**
Are palm oil, palm kernel oil or derivaties of these used in the raw material/ingredient?	☐	☐
If yes, is the renewable raw material sustainability certified? **If yes**, please state the raw material sustainability certification system:	☐	☐

If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)

No traceability	☐
Identity preserved	☐
Segregated	☐
Mass balance	☐
Book & Claim	☐

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.*	☐	☐

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.

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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 fulfil the general requirements of standard ISO 17025 or have official GLP status.

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 logKow ≥ 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 ≤ 500, the substance is not considered to be bioaccumulative even if its logKow ≥ 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 / ECx > 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 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 Declaration from the manufacturer of the primary packaging component

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of dishwasher detergents and rinse aids.

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 (container, closure, label)
Packaging material (type of plastic, cardboard etc.) List all materials included in the packaging component and the percentage of each material.

O15 Rigid plastic packaging: Design for recycling	**Yes**	**No**
Is the component made of monomaterial? **If no**, please state material:	☐	☐
If made of polyethylene terephthalate (PET): Have any pigments/colours been added?	☐	☐
Has carbon black been added to the component?	☐	☐
Are any barriers used in the component?	☐	☐
Are fillers used in the components? **If yes**, please state the density of the packaging component [g/cm^3]:	☐	☐
Does the component contain metal parts? **If yes**, please specify the type of metal part:	☐	☐
For closures: Does the component contain silicone?	☐	☐

O16 Labels for rigid plastic packaging: Design for recycling	**Yes**	**No**
For non-polyolefin plastic labels applied to PE or PP containers: Please state the density of the label: *Note: Density in g/cm^3.*		
For labels applied to PET containers: Please state the density of the label: *Note: Density in g/cm^3.*		
Is there polyvinyl chloride (PVC) or other halogenated plastics present in the labels?	☐	☐
Does the label contain metal? **If yes**, please specify the type of metal part:	☐	☐

O17 Flexible plastic pouches: Design for recycling	Yes	No
Is the component made of monomaterial?	☐	☐
Are any barriers used in the component? **If yes**, please state barrier type and percentage (weight %):	☐	☐
Has carbon black been added to the component?	☐	☐
Are fillers used in the components? **If yes**, please state the density of the packaging component [g/cm^3]:	☐	☐
Does the component contain metal seals or other metal parts? **If yes**, please specify the type of metal part:	☐	☐
For closures: Does the component contain silicone?	☐	☐

O18 Paper-based packaging: Design for recycling	Yes	No
Does the packaging contain recycled material*? ** Recycled material is defined in accordance with ISO 14021 in the following two categories.* *Material in the pre-consumer phase. Material that has been taken from the waste flow during the manufacturing process. The exception is the re-use of material that is generated in a process, e.g. waste that can be recycled within the same process that generated it.* *Material in the post-consumer phase. Material generated by households or by trade, industry or institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose. This includes the return of materials from the distribution chain.* **If yes**, please state the percentage recycled in the wood raw material that is used in the paper/board:	☐	☐
With reference to the percentage PCR in the wood raw material above: Is the remaining proportion of wood raw material covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources)?	☐	☐
Is the packaging a cardboard packaging?	☐	☐
Is the packaging a corrugated board packaging?	☐	☐
Is the packaging laminated with any barrier material? **If yes**, please state the barrier material type: **If yes**, is the laminate on one side only?	☐	☐
Is there polyvinyl chloride (PVC) or other halogenated plastics present in the labels?	☐	☐
Does the packaging contain metal parts?	☐	☐
Is the packaging material solid coloured?	☐	☐

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

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:

_____

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