Nordic Ecolabelling of

Industrial cleaning and degreasing agents



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Proposal for public review

Nordic Ecolabelling

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This document is a translation of an original in Norwegian. 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 Ecolabel. These organisations/companies operate the Nordic ecolabelling system on behalf of their own country's government. For more information, see the websites:

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

What is a Nordic Ecolabelled industrial cleaning and degreasing agent?

Industrial cleaning and degreasing agents should be able to remove oil residues, wax, grease, dirt, dust and any rust from surfaces, machine parts/tools and pipe systems made from substances such as steel, aluminium, concrete and plastic.

Areas of use may include cleaning and degreasing of floors and walls in production premises, machinery and machine parts, production equipment and metal parts in industry, tanks/cargo holds on ships, ship decks and decks on oil platforms, pipe systems (CIP cleaning), façades and tunnels, removing cooling and cutting oil and cleaning water cooling systems.

Nordic Ecolabelled industrial cleaning and degreasing agents:

- have the ability to remove oil, grease and dirt while also being gentle on the environment.
- are biodegradable, do not bioaccumulate and limit emissions of toxic substances into the aquatic environment?
- are performance tested and are just as good as comparable products

Ecolabelling of industrial cleaning and degreasing agents will contribute to reduced emissions of substances that are harmful to health and the environment, either directly to water recipients or via the sewerage system.

Nordic Ecolabelling applies the precautionary principle and therefore sets strict requirements concerning chemicals that are harmful to health and the environment, and encourages technology that replaces such chemicals.

Industrial cleaning and degreasing agents must, however, be effective – an important factor for industry in minimising downtime and thus reducing costs – and it is also important for the environment that the products are of sufficient quality with regard to the areas of use. Ecolabelling of the products therefore also needs to include requirements concerning performance/quality.

Why choose the Nordic Ecolabel?

- The manufacturer may use the Nordic Ecolabel trademark for marketing. The Nordic Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Ecolabel is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- Environmental issues are complex. It can take a long time and extensive resources to gain an understanding of a specific area. Nordic Ecolabelling can be seen as aid in this work.
- The Nordic Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Ecolabel?

Industrial cleaning and degreasing agents that are intended to clean and degrease floors and walls in production premises, floors and decks on ships and oil platforms, production equipment, metal and machine parts in industry and tanks/cargo holds on ships, and to clean water cooling systems and water treatment systems, pipe systems (CIP) and tunnels. Super-concentrates may be Nordic Ecolabelled.

The products may only be marketed to professional users in industry.

The criteria do not cover car and boat care products, cleaning agents for use in the food industry, products for window washing, and universal and sanitary cleaning agents, since there are separate criteria for these product types.

Products containing microorganisms, water treatment chemicals and products for the pharmaceutical industry also cannot be Nordic Ecolabelled.

Nordic Ecolabelling has criteria for other types of cleaning agent. For products that cannot be Nordic Ecolabelled under this document, see the other Nordic Ecolabelling documents. Contact us for more information, addresses can be found on page 2.

How to apply

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

Icons in the text

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

🔑 The requirement checked on site

Application

Applications are made to the national ecolabelling organisation and the application is valid for 12 months. Applications may be processed by another ecolabelling organisation according to agreement between the organisations. The applicant is notified of this. Companies located outside the Nordic countries make applications to the national ecolabelling organisation of the primary market.

The application must consist of a completed application form together with all of the documentation required to demonstrate compliance with the requirements specified in the criteria document (this is specified for each requirement). The application form must specify in which Nordic countries the products in question are to be sold and the estimated turnover from the products in each country.

Further information and assistance may be available. Visit the relevant national website for information.

Sales in the Nordic region

Once granted, a licence is valid throughout the Nordic region. The licence document specifies in which Nordic countries the products are sold according to the information provided on the application. The products are published on Nordic Ecolabelling's website(s). The licensee undertakes to inform Nordic Ecolabelling of any changes as to where the product is sold. If the product is to be sold in other Nordic countries than those initially specified in the application, the licensee must provide written notification of this and submit any extra documentation required to Nordic Ecolabelling in the country that issued the license.

Use this text below if it is a licence that can be registrated in other Nordic countries.

On-site inspection

In connection with handling of the application, Nordic Ecolabelling 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.

Costs

An application fee is charged to companies applying for a licence. There is an additional annual fee based on the turnover of the Nordic Ecolabelled product.

Enquiries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 2 for addresses.

What are the requirements of the Nordic Ecolabelling?

To be awarded a Nordic Ecolabel licence, all requirements must be fulfilled.

In order to be granted a Nordic license, the following documentation must be attached to the application:

- Documentation demonstrating compliance with any national regulations/special requirements.
- User instructions in all relevant languages.
- A copy of labels in all relevant languages.
- Documentation demonstrating compliance with national rules and laws, as well as any industry agreements on return systems for packaging.

1 Environmental requirements

Environmental requirements are divided into three parts - general requirements, including requirement regarding specific substances, effectiveness and packaging.

Chapter 1.1, "General Requirements" contains requirements that must be fulfilled by all products and apply to all constituent substances unless stated otherwise. In addition the chapter covers requirements regarding surfactants biodegradability and aerob and anaerob degradability.

Chapter 1.2, contains requirement regarding effectiveness

Chapter 1.3, contains requirement regarding packaging

Unless otherwise specified, the term 'constituent substances' refers to all substances in products, including additives in the raw materials (e.g. preservatives and stabilisers), but not impurities from primary production. Impurities comprise residues from primary production that may be found in the industrial cleaning and degreasing product at concentrations below 100 ppm (0.0100% by weight, 100 mg/kg) Substances that are added to an ingredient, deliberately or for a purpose, are not regarded as impurities, regardless of concentration. Impurities at concentrations greater than 1.0% in the ingredient are regarded as constituent substances. Substances/products known to be liberated by a constituent substance are also regarded as constituent substances.

1.1 General environmental requirements

O1 Information regarding the product

Applicants must provide detailed information about the products included in the application. The following details are to be given:

- Description of the product (function and areas of use)
- A complete formulation with information on all constituent substances must be submitted to Nordic Ecolabelling. For each ingredient, the formulation must include:
  - trade name
  - chemical name
  - quantity (% by weight), including and excluding water
  - CAS no. and/or EINECS no.
  - DID no.

If the raw materials contain several substances, water content and function are to be stated.

The DID number is the number an ingredient has on the DID list, which is to be used when calculating chemical requirements. The DID list can be found on the Nordic Ecolabelling website, see addresses on page 2. See Appendix 4 for more information on the DID list.

☒ Description of the product in line with the definition of what may be Nordic Ecolabelled.

☒ Complete formulation in compliance with the requirement.

☒ Safety data sheet/product data sheet in line with prevailing legislation in the country of application, e.g. Annex II to REACH (Regulation 1907/2006/EC) for each product and each constituent substance.

O2 Classification of the product

The product must not be classified/labelled in any of the hazard categories set out in Table O2 below. The classification shall be in accordance with the current legislation (CLP Regulation 1272/2008 or the EU's Dangerous Preparations Directive 1999/45/EEC 2008, or later). Note that classification under the Dangerous Preparations Directive may only be used until 31 May 2015.

Table O2 – Classification of the product

CLP Regulation 1272/2008[1]:			EU Dangerous Substance Directive 67/548/EC[2]:	
Signal words	Hazard code		Hazard class	Risk phrase
			Environmentally hazardous,	
Warning, Aquatic acute 1	H400		N	R50
Warning, Aquatic chronic 1	H410		N	R50/53
Warning, Aquatic chronic 2	H411		N	R51/53
-, Aquatic chronic 3	H412		-	R52/53
-, Aquatic chronic 4	H413		-	R53
-, Ozone	H420		N	R59
			Carcinogenic,	
Danger, Carc. 1A or 1B	H350		T	R45 and/or
			T	R49
Warning, Carc. 2	H351		Xn	R40
			Mutagenic	
Danger, Muta. 1A or 1B	H340		T	R46
Warning, Muta. 2	H341		Xn	R68
			Reprotoxic	
Danger, Repr. 1A or 1B	H360		T	R60
Danger, Repr. 1A or 1B	H360		T	R61
Warning, Repr. 2	H361		Xn	R62 and/or
Warning, Repr. 2	H361		Xn	R63
-	H362		-	R33
-	H362		-	R64
			Very toxic,	
Danger, Acute Tox. 1 or 2	H330		Tx	R26
Danger, Acute Tox. 1	H310		Tx	R27
Hazardous, Acute Tox. 2	H300		Tx	R28 and/or
Danger, STOT SE 1	H370		Tx	R39
			Toxic	
Danger, Acute Tox. 2 or 3	H330 or H331		T	R23
Danger, Acute Tox. 3	H331		T	R24
Danger, Acute Tox. 3	H301		T	R25
Danger, STOT SE 1	H370		T	R39 and/or
Danger, STOT RE 1	H372		T	R48
			Hazardous to health	
Warning, Acute tox 4	H332		Xn	R20
Warning, Acute tox 4	H312		Xn	R21
Warning, Acute tox 4	H302		Xn	R22
Warning, STOT RE 2	H373		Xn	R48
Hazardous, Asp. Tox. 1	H304		Xn	R65 and/or
Warning, STOT SE 2	H371		Xn	R68
			Sensitising,	
Hazardous, Resp. Sens. 1	H334		Xn	R42
Warning, Skin sens. 1	H317		Xi	R43
Flam. Liq. 1	H224		Fx	R12

[1] *Applies from December 2010.*

[2] *Applies during period of transition to Regulation (EC) No 1272/2008 from December 2010 to June 2015.*

Super-concentrates must meet the requirement for classification in usable form (at maximum recommended dosage), but must not be classified as H400, H410, H411, H412 and/or H413 in concentrated form.

Please note that the manufacturer of the raw material/product is responsible for the classification.

☒ Label and safety data sheet in line with prevailing legislation in the country of application, e.g. Annex II to REACH (Regulation 1907/2006/EC).

O3 Classification of constituent substances in the product

The product must not contain substances that are or may degrade into substances that are classified as carcinogenic (Carc), mutagenic (Mut), reprotoxic (Rep), sensitising on inhalation, acutely toxic or having specific target organ toxicity on repeated exposure (STOT RE) according to CLP Regulation (No) 1272/2008.

Constituent substances in the products must also not be classified in any of the hazard categories in table O3.

Table O3 – Classification of constituent substances in the product

Hazard class in accordance with CLP Regulation	CLP Regulation 1272/2008
Carcinogenic Category Carc 1A/1B/2 *	H350 H351
Mutagenic Category Muta 1A/1B/2	H340 H341
Reprotoxic Category Repr 1A/1B/2 **	H360 H361 H362
Resp. Sens. 1 Skin Sens. 1	H334 H317

** An exemption is made for NTA as an impurity. Complexing agents of the type MGDA and GLDA may contain NTA as an impurity in the raw material in concentrations below 1.0%, as long as the concentration in the product remains below 0.1%.*

☒ Safety data sheet/product data sheet for all constituent substances (in all products) in line with prevailing legislation in the country of application, e.g. Annex II to REACH (Regulation 1907/2006/EC).

☒ Duly completed declaration from the manufacturer (Appendix 1), declaration from the raw material producer/supplier (Appendix 2) plus safety data sheets for all constituent substances in line with the prevailing European legislation.

O4 Environmentally harmful substances

No constituent substances with the following environmental hazard classification (in accordance with the CLP Regulation (EC) No 1272/2008) may occur in the product in quantities that exceed the stated limit.

$100*C_{H410} + 10*C_{H411} + C_{H412} \leq 1\%$

where

C_{H410} is the concentration of substances classified as H410 in percent

C_{H411} is the concentration of substances classified as H411 in percent

C_{H412} is the concentration of substances classified as H412 in percent

Surfactants classified as H412 are exempt from the requirement, as long as they are readily degradable and anaerobically degradable**.

** In accordance with the DID list or with test method no. 301 A-F or no. 310 in the OECD guidelines for testing of chemicals or other equivalent test methods.*

*** In accordance with the DID list or ISO 11734, ECETOC no. 28 (June 1988) or equivalent test methods, where at least 60% degradability is achieved under anaerobic conditions.*

If information about the substance's harmfulness to the environment is not available, the substance is assumed to be environmentally harmful H410.

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

✉ Summary of the products' content of H410, H411 and H412 classified compounds per litre of solution in use, plus calculations showing that the requirement is fulfilled.

O5 Preservatives

- Preservatives may be added to liquid products as long as the preservative is not bioaccumulative. Compounds are considered not to be bioaccumulative if BCF < 500 or logKow < 4.0. If there is data on both BCF and logKow, the value for the BCF shall be used.
- The concentration of preservative must be optimised in relation to the volume of the product and a Challenge Test (see Appendix 4) or equivalent showing this must be performed.
- Preservatives are only permitted to preserve the product or raw material, not to provide a disinfecting effect or antimicrobial function.

✉ Documentation that none of the added preservatives are bioaccumulative, cf. OECD test method no. 305 A-E or 107, 117.

✉ Test report from the completed Challenge Test or equivalent showing that an optimum concentration of the preservative is used in the product. See Appendix 4 for the requirements concerning the test laboratory, and for information about the Challenge Test.

O6 Volatile organic compounds (VOC)

Volatile organic solvents may be present to a maximum of 1% by weight.

Volatile organic compounds (VOC) are defined under the VOC Directive 1999/13/EC as follows:

Volatile organic compounds (VOC): organic substances with a vapour pressure > 0.01 kPa at 20°C.

✉ Calculation of the VOC content of the product.

O7 Phosphorus and phosphonates

Phosphorus and phosphonates must not be included in products for outdoor use.

Phosphorus and phosphonates in products for indoor use must not amount to more than 0.5 g P per litre of solution in use.

Be aware of national legislation on phosphorus where the product will be sold/marketed. In Norway, phosphorus is regulated in sections 2-12 and 2-14 of the "Regulation limiting the use of chemicals and other products that are harmful to health and the environment (The Product Regulation)".

✉ Calculation of the quantity of phosphorus and phosphonates added (calculated as elementary phosphorous, P) to the solution.

O8 Substances that must not be present in the product

The following compounds must not be contained in the product or be actively added substances in the raw materials:

- APEO and APD (alkylphenol ethoxylates and alkylphenol derivatives)
- EDTA (ethylene diamine tetra acetate and salts thereof) and DTPA (diethylenetriamine penta acetate)
- Organic chlorine compounds and reactive chlorine
- Halogenated and aromatic solvents

- Phthalates
- Dyes
- Fragrance
- Quaternary ammonium compounds that are not degradable
- Benzalkonium chloride
- Substances on the Candidate List*
- 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 (Regulation 1907/2006/EC).
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. See following link:
  http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf
- Nanoparticles (from nanomaterials**)

**The Candidate List can be found on the ECHA website: http://echa.europa.eu/candidate-list-table*

***The definition of a nanomaterial follows the European Commission's definition of nanomaterials from 18 October 2011, with the exception that the limit for the particle size distribution is reduced to 1%: "A natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate, where at least 1% of the particles have one or more external dimensions in the size range 1-100 nm." Examples include ZnO, TiO_2, SiO_2, Ag and laponite with particles of nanosize in concentrations above 1%. Polymer emulsions are not considered to be a nanomaterial.*

✉ Duly completed and signed declaration from the manufacturer (Appendix 1).

✉ Duly completed and signed declaration from the raw material supplier (Appendix 2).

O9 Surfactants, ready degradability, aerobic and anaerobic

All surfactants must be readily aerobically degradable in accordance with test method no. 301 A-F or no. 310 in the OECD guidelines for testing of chemicals or other equivalent test methods.

For products for use offshore, i.e. products that risk running directly into the ocean, the surfactants must be readily degradable in accordance with OECD 306 or OECD 301.

All surfactants must be anaerobically degradable, which means at least 60% degradability under anaerobic conditions, in accordance with ISO 11734, ECOTOC no. 28 or equivalent test methods.

Documentation must, in the first instance, refer to the DID list dated 2014 or later. For surfactants not covered by the list, other documentation such as test reports or copies of references in literature may be used (Appendix 4).

✉ Documentation is required for each surfactant, showing that the surfactant is readily biodegradable and anaerobically degradable in line with the requirements above.

O10 aNBO

The quantity of organic substances that are aerobically non-biodegradable (aNBO), in accordance with the DID list, must not exceed 0.6 g/litre of solution in use.

For substances not on the DID list, other documentation in accordance with Appendix 4 may be submitted.

✉ Calculation of the total amount of organic substances that are aerobically non-biodegradable (aNBO) in accordance with the DID list, based on the solution in use. The parameters and calculation formulas needed for documentation of the requirement can be found in Appendix 4.

DID list: Detergents Ingredients Database.

O11 anNBO

The quantity of organic substances that are anaerobically non-biodegradable (anNBO) must not exceed 0.6 g/litre of solution in use.

Surfactants are exempted from this requirement, but are covered by requirement O9.

For substances not on the DID list, other documentation in accordance with Appendix 6 may be submitted.

✉ Calculation of the total amount of organic substances that are anaerobically non-biodegradable in accordance with the DID list. For substances not on the DID list, other documentation in accordance with Appendix 6 may be submitted.

DID list: Detergents Ingredients Database.

O12 CDV (Critical dilution volume)

The products critical dilution volume (CDV) must not exceed 1.500.000 (CDV acute/litre in-use-solution).

CDV_{acute} is calculated using the formula below and must be calculated for all substances in the product.

$$CDV_{acute} = \sum (dose_i \times DF_i \times 1000 / TF_{acute})$$

where:

$dose_i$ = the constituent quantity of substance $_i$

DF_i = degradation factor of substance $_i$ as stated in the DID list

TF_{acute} = the toxicity factor of the substance $_i$ as stated in the DID list

Calculation of CDV using the highest recommended concentration at which the product may be used (gram per litre in-use solution)

Documentation must primarily refer to the DID List dated 2014 or later. For substances not included in the list, other documentation may be used, such as test reports or literature references.

✉ Calculation of CDV (acute) for the product included all ingoing substances. The DID list and a spreadsheet for calculation of this requirement is available on the national websites of Nordic Ecolabelling.

1.2 Performance

O13 User reports

The performance of the product must be documented by means of user reports (see Appendix 3). The product must be used by at least five relevant industrial users within the area of use of the product for a period of time that is representative of the frequency of use of the product, (i.e. the product must be used repeatedly).

✉ A minimum of five user reports (as formulated in Appendix 3) must be submitted by at least five relevant industrial users of the product. The user reports must show that all five users are satisfied with the product.

1.3 Packaging and information

O14 PVC in packaging

PVC and other halogenated plastics shall not be part of the primary packaging or packaging components (including caps, lids, pumps and labels).

✉ Declaration from the manufacturer. Packaging overview stating packaging type.

O15 Labelling of packaging

The plastic packaging must carry information on the components and materials from which the packaging is made and how these should be sorted. It may be labelled in accordance with European standards (e.g. DIN 6120, Part 2), recommendations from national waste collection bodies or equivalent.

Caps, lids and pumps are exempted from this requirement.

✉ On-site inspection. Alternatively: Picture of the product's labelling or data sheet showing the labelling. The labelling may also be indicated by the label, if this is accompanied by documentation for the type of plastic from the packaging manufacturer.

O16 Information for users and packaging design

A technical description of the product or information that accompanies the product, which must contain the following information:

- Product type and area of use
- Recommended dosage for normal use and normal soiling (applies to products that have to be diluted before use).
  Recommended dosage may be stated as no. of dl, pumps or caps, for example.
- Description of how the user avoids contact with the product, by using personal protective equipment, for instance.

The information text on the packaging/product data sheet must comply with the EU's provisions on the declaration of contents, as set out in Regulation (EC) No 648/2004 of the European Parliament and of the Council, Appendix VII.

The product's area of use must match the area for which the product was tested.

The packaging for super-concentrates must be designed in such a way that there is no risk that the user will come into contact with the product. This is to be made explicit in the technical description/user instructions that accompany the product.

If, after use, the product is considered environmentally harmful waste (like brush cleaner, for example), the label must state that the product should be disposed of as environmentally harmful waste.

The EU's provisions on the declaration of contents, Regulation (EC) No 648/2004 of the European Parliament and of the Council, Appendix VII.

✉ Technical description, safety data sheet, product sheet and/or label showing the information text.

2 Quality and regulatory requirements

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

If the enterprise's environmental management system is certified to ISO 14 001 or EMAS, and the following procedures implemented, it is sufficient for the accredited auditor to certify that the requirements are observed.

O17 Licence administrators

The company shall appoint an individual responsible for ensuring the fulfilment of Nordic Ecolabel requirements, and a contact person for communications with Nordic Ecolabelling.

✉ Organisational chart showing who is responsible for the above.

O18 Documentation

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

🔑 Checked on site.

O19 Quality of the cleaning agent

The licensee must guarantee that the quality of the production of the Nordic Ecolabelled industrial cleaning and/or degreasing agent is maintained throughout the validity period of the licence.

✉ Procedures for collating and, where necessary, dealing with claims and complaints regarding the quality of the Nordic Ecolabelled industrial cleaning and degreasing agent.

O20 Planned changes

Written notice of planned product and marketing changes that affect the Nordic Ecolabelling requirements must be given to Nordic Ecolabelling.

✉ Procedures detailing how planned changes are dealt with.

O21 Unplanned non-conformities

Unforeseen non-conformities that affect Nordic Ecolabel requirements must be reported to Nordic Ecolabelling in writing and logged.

✉ Procedures detailing how unforeseen non-conformities are handled.

O22 Traceability

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

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

O23 Take-back system

Relevant national regulations, legislation and/or agreements within the sector regarding take-back systems for products and packaging shall be complied with in all the Nordic countries where the Nordic Ecolabelled industrial cleaning and degreasing agents are marketed.

✉ Declaration from the applicant regarding affiliation to existing recycling/processing agreements.

O24 Laws and regulations

The licensee must ensure compliance with the applicable legislation on health and safety, environmental legislation and installation-specific terms/permits at all the production sites for the Nordic Ecolabelled product.

Documentation is not required. However, Nordic Ecolabelling may revoke the licence if the requirement is not fulfilled.

Marketing

The Nordic Ecolabel is a very well-known and well-reputed trademark in the Nordic region. Nordic Ecolabelled products and services may be marketed using the Nordic Ecolabel so long as the associated licence is valid.

The label must be positioned so that there is no doubt as to what the label refers and so that it is clear that the product is ecolabelled.

More information on marketing can be found in "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

Design of the Nordic Ecolabel

Design of the Nordic Ecolabel:



Each licence has a unique six-figured licence number that must be displayed along with the label.

More information on the design of the label can be found in "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

Follow-up inspections

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

The licence may be revoked if it is evident that 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.

How long is a licence valid?

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

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

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

New criteria

This chapter will be completed after the public review period.

Terms and definitions

Term	Explanation or definition
aNBO	Aerobically Non-Biodegradable Organics
anNBO	Anaerobically Non-Biodegradable Organics
BCF	Bioconcentration Factors
CDV	Critical Dilution Volume
CMR	Substances classified as either Carcinogenic, germ stem Mutagenic or Reprotoxic
PBT / vPvB	Persistent, Bioaccumulative, Toxic/very Persistent and very Bioaccumulative
SVHC	Substances of Very High Concern
VAH	Volatile Aromatic Compounds, which are a subset of VOC
VOC	Volatile Organic Compounds
DID list	Detergents Ingredients Database list, dated 2014

Appendix 1 Declaration by the manufacturer / supplier on the contents of the product

This declaration is based on knowledge we have available about the product, based on tests and/or declarations from the raw material producer, at the time of application.

Name of the product:
Type of product:

Unless stated otherwise, constituent substances are regarded as all substances in the product, including additives (e.g. preservatives and stabilisers) in the raw materials, but not impurities from primary production.

Impurities are regarded as residue from primary production present in the finished product in concentrations of less than 100 pp, (0.0100% by weight, 100 mg/kg). Substances that have been added to a raw material or a product, deliberately and with a purpose, are not regarded as impurities, regardless of quantity.

Impurities at concentrations exceeding 1.0% in the raw material are regarded as constituent substances. Products known to be liberated by a constituent substance are also regarded as constituent substances.

Does the product contain anyone of the following substances?

	Yes/ No
APEO and APD (alkylphenol ethoxylates and alkylphenol derivatives)	
EDTA (ethylene diamine tetra acetate and salts thereof) and DTPA (diethylenetriamine penta acetate)	
Organic chlorine compounds and reactive chlorine	
Halogenated and aromatic solvents	
Phthalates	
Dyes	
Fragrance	
Quaternary ammonium compounds that are not degradable	
Benzalkonium chloride	
Substances on the Candidate List*	
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 (Regulation 1907/2006/EC).	
Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. See following link: *http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf*	
Nanoparticles (from nanomaterials**)	

**The Candidate List can be found on ECHAs homepage: http://echa.europa.eu/candidate-list-table*

***Nanomaterials/-particles are defined according to the EU Commission definition of nanomaterials, dated 18 October 2011, except that the limit for particle size distribution is reduced to 1%: "A nanomaterial is a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or agglomerate and where, for at least 1% of the particles in the number size distribution, one or more external dimensions is in the size range 1-100 nm." Examples are ZnO, TiO_2, SiO_2, Ag and laponite with particles of nanosize in concentrations exceeding 1%. Polymer emulsions are not regarded as nanomaterials.*

Signature of manufacturer / supplier

Place and date	Company
Signature of contact person	
Name of contact person (block capitals)	Telephone

Appendix 2 Declaration by the manufacturer /supplier on the contents of the raw material

This declaration is based on knowledge we have available about the product, based on tests and/or declarations from the raw material producer, at the time of application.

Name of raw material:
Manufacturer / supplier:

Unless stated otherwise, constituent substances are regarded as all substances in the product, including additives (e.g. preservatives and stabilisers) in the raw materials, but not impurities from primary production.

Impurities are regarded as residue from primary production present in the finished product in concentrations of less than 100 pp, (0.0100% by weight, 100 mg/kg). Substances that have been added to a raw material or a product, deliberately and with a purpose, are not regarded as impurities, regardless of quantity.

Impurities at concentrations exceeding 1.0% in the raw material are regarded as constituent substances. Products known to be liberated by a constituent substance are also regarded as constituent substances.

Does the raw material contain anyone of the following substances?

	Yes / No
APEO and APD (alkylphenol ethoxylates and alkylphenol derivatives)	
EDTA (ethylene diamine tetra acetate and salts thereof) and DTPA (diethylenetriamine penta acetate)	
Organic chlorine compounds and reactive chlorine	
Halogenated and aromatic solvents	
Phthalates	
Dyes	
Fragrance	
Quaternary ammonium compounds that are not degradable	
Benzalkonium chloride	
Substances on the Candidate List*	
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 (Regulation 1907/2006/EC).	
Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. See following link: *http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf*	
Nanoparticles (from nanomaterials**)	

**The Candidate List can be found on ECHAs homepage: http://echa.europa.eu/candidate-list-table*

***Nanomaterials/-particles are defined according to the EU Commission definition of nanomaterials, dated 18 October 2011, except that the limit for particle size distribution is reduced to 1%: "A nanomaterial is a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or agglomerate and where, for at least 1% of the particles in the number size distribution, one or more external dimensions is in the size range 1-100 nm." Examples are ZnO, TiO_2, SiO_2, Ag and laponite with particles of nanosize in concentrations exceeding 1%. Polymer emulsions are not regarded as nanomaterials.*

Signature of manufacturer / supplier of raw material

Place and date	Company
Signature of contact person	
Name of contact person (block capitals)	Telephone

Appendix 3 Performance (O13)

Information about the product

Full name of the product
Manufacturer
Area of application

User report of the product

The product is tested within the area of use of the product for a period of time that is representative of the frequency of use of the product.

Dosage (unit g/l in-use solution)	(g/l in-use-solution)
Dosage in accordance with the manufacturer's recommendation?	Yes / No
Test period	Start date: End date:
How many times has the product been tested in the stated test period?	

Performance of the product

The product is assessed visually after completion of test period (defined above). The products performance is considered to be:

Not satisfactory	☐
Satisfactory	☐
Very satisfactory	☐
Other comments to the assessment of the product:	

Information about the site of testing performance

Company	
Address	
Contact person	Title
Telephone	e-mail
Place and date	Signature

Appendix 4 Analysis and test laboratories

Requirements concerning the analysis laboratory

The following requirements apply tests regarding eco-toxicological effects and Challenge-tests.

The analysis laboratory must meet the general requirements in accordance with standard EN ISO 17025 or be an officially GLP-approved analysis laboratory.

The applicant's analysis or measurement laboratory may be approved to conduct analyses and measurements, including Challenge test, if:

- the authorities monitor the sampling and analysis process, or
- the manufacturer has a quality system incorporating sampling and analyses, and which is certified in accordance with ISO 9001 or ISO 9002, or
- the manufacturer can show that the manufacturer's own tests are in agreement with those of an impartial test institution, as certified through a parallel test, and that the manufacturer takes samples in accordance with a prescribed sampling plan.

The manufacturer's test laboratory can be approved to conduct testing to document effectiveness if the following additional requirements are met:

- The ecolabelling organisation must be able to monitor the execution of a test.
- The ecolabelling organisation must have access to all data about the product
- The samples must be de-identified for the test laboratory
- Execution of the effectiveness test must be described in the quality control system.

Challenge test (O5)

Challenge-test is a term for mass tests to determine the right/necessary amount of preservatives in products. This is done by adding various concentrations (2%, 1 %, 0.5 % and 0.25 %) preservatives to a series of samples and a sample with no added preservative. The samples are added a mixture of bacterial blood, yeasts and moulds, and are tested for growth of these organisms. The period for which the test is in progress may vary dependent on what you want to test and at which test conditions the test is carried out by, that the organisms being tested on (depends on how the product is used in the final stages), pH, temperature and so on (such parameters are not specified in the Challenge-test).

The lowest concentration of preservatives where there is no growth is the optimal amount of preservatives for the product. Different manufacturers and distributors of preservatives have different Challenges tests/methods that they use to decide the right content of preservatives, such as Koko Test (Test Method SM 021), USP Challenge Test (US Pharmacopoeia) and CTFA Challenge Test (Cosmetics Toiletries and Fragrance Association).

The length of a test can vary depending on what is being tested for, and under what conditions the test is being conducted, for example which organisms are being tested for (depending on how the product will be used in the end phase), pH, temperature and so on (if the parameters are not specified in Challenge Tests).

Critical dilution volume (CDV)
The critical dilution volume (CDV) is calculated in accordance with the following formula:

$CDV = 1000 * \Sigma dose\ (i) * DF(i)/TF(i)$

Dosage (i) = Dosage of component $_i$, expressed in g/litre in-use-solution

DF(i) = Degradation factor for component $_i$.

TF(i) = Toxicity factor for component $_i$.

Method for determining parameter values for components not on the DID List
The specified parameter values must be used for all components on the 'Detergent Ingredients Database' (version 30 June 2004, Part A) chemicals list, i.e. the DID List and reference to the list should be specified. However, an exception is made for colouring agents, where additional test results are approved (see the footnote in Part A). If the substance is not on the DID List the parameters are to be calculated based on section B of the DID List, and documentation of the background to the calculations is to be submitted with the application.

The following method must be used for components not on the DID List:

Toxicity in aquatic environment
In Nordic Ecolabelling, CDV is calculated on the basis of the acute or chronic toxicity factor and the safety factor.

Acute toxicity factor (TF_{acute})

- Calculate the median value for each trophic level (fish, crustaceans or algae) on the basis of validated test results concerning acute toxicity. If there are a number of test results for the same species at a certain trophic level, the median value for the species must be calculated first. These median values are then used to calculate the median level for the trophic level.
- The acute toxicity factor (TF_{acute}) is the lowest calculated acute median value for the trophic levels divided by the acute safety factor (SF_{acute}).
- TF_{acute} must be used to calculate the critical dilution volume.

Chronic toxicitity factor ($TF_{chronic}$) Calculate the median value for each trophic level (fish, crustaceans or algae) on the basis of validated test results concerning chronic toxicity. If there are a number of test results for the same species at a certain trophic level, the median value for the species must be calculated first. These median values are then used to calculate the median level for the trophic level.

The chronic toxicity factor ($TF_{chronic}$) is the lowest calculated chronic median value for the trophic levels divided by acute safety factor SF_{acute}.

$TF_{chronic}$ is used to calculate the critical dilution volume.

Safety factor
The safety factor (SF_{acute}) depends on how many trophic levels are tested and whether or not there are test results for chronic toxicity. The acute safety factor (SF_{acute}) and the acute toxicity factor (TF_{acute}) are determined as follows:

Data	**Safety factor (SF_{acute})**	**Toxicity factor (TF_{acute})**
A short-term LC50 (or LE50)	10 000	Toxicity / 10 000
Two short-term LC50 (or LE50) from species representing two trophic levels (fish and/or crustaceans and/or algae)	5 000	Toxicity / 5 000
At least one short-term LC50 (or LE50) from each of the trophic levels	1 000	Toxicity / 1 000
One long-term NOEC (fish or crustaceans)	100	Toxicity / 100
Two long-term NOEC from species representing two trophic levels (fish and/or crustaceans and/or algae)	50	Toxicity / 50
Long-term NOEC from at least three species (fish, crustaceans and algae) representing three trophic levels	10	10

Degradation factor
The degradation factor is defined as follows:

Degradation factor (DF)

	DF
Readily biodegradable (*)	0.05
Readily biodegradable (**)	0.15
Potentially degradable	0.5
Persistent	1.0

(*) All surface-active substances or other components that consist of a series of homologues and that meet the requirement for ready degradation in the test must be included in this class regardless of whether they meet the criterion of a 10-day window.

(**) The criterion of a 10-day window is not met.

In the case of inorganic components, DF is determined on the basis of the observed degradation rate. If the component is degraded within 5 days: DF = 0.05; within 15 days: DF = 0.15; or within 50 days: DF = 0.5.

- For every substance in the product, it must be clearly apparent which substance from the list has been used.
- Presentation of the calculations of the CDV formula for every ingredient and CDV for complete product.

For substances not on the DID List, it must be clearly apparent which values are used in the CDV formula.

Aerobic non-biodegradable substances, aNBO
Aerobic non-biodegradable substances, aNBO, are organic substances that do not meet the criteria for ready degradability. The aNBO value is expressed as the total quantity of non-readily degradable substances in g/litre in-use-solution.

In the chemicals list (the DID List), the substances are divided into the following classes:

Category	**Code**
Readily biodegradable	R
Potentially biodegradable, but not readily biodegradable	I
Persistent	P
Not tested for biodegradability under aerobic conditions.	O

Organic substances that are classified as I and P or O are regarded as aNBO, unless the result of degradation tests for untested substances is presented.

The limit values for whether a substance is to be classified as readily or potentially degradable are shown below:

Classified	***Test method**	**BOD or CO_2**	**COD**
Readily degradable	301 A-F	≥ 60%	≥ 70%
Potentially degradable	302 A-C		≥ 70%

BOD (Biological oxygen demand)
COD (Chemical oxygen demand)

Anaerobic non-biodegradable substances, anNBO
Anaerobic non-biodegradable substances, anNBO, are organic compounds that are not degraded under oxygen-deficient conditions. The anNBO value is expressed as the total quantity of anaerobic non-degradable organics in g/litre in-use-solution.

In the DID List, substances are divided into the following classes:

Category	**Code**
Non-biodegradable under anaerobic conditions, i.e. tested and found not to be degradable	N
Biodegradable under anaerobic conditions, i.e. tested and found to be degradable, or degradability established via analogy comparisons.	Y
Not tested for biodegradability under anaerobic conditions	O

All organic substances with a classification of N and O on the DID list are regarded as anNBO unless otherwise shown by the results of anaerobic degradation tests for untested substances.

If the substance is not on the DID List, anaerobic degradation of the substance must be documented. All substances that are not anaerobically degradable in accordance with ISO 11734, ECETOC no. 28 June 1988 or some other scientifically accepted method are classed as anNBO. The requirement is a minimum of 60% degradability under anaerobic conditions.

In the absence of documentation in accordance with the above requirements, a substance other than a surfactant may be exempted from the requirement for anaerobic degradability if one of the following three alternatives is fulfilled:

1. Readily degradable and has low adsorption (A < 25%) or
2. Readily degradable and has high desorption (D > 75%) or
3. Readily degradable and non-bioaccumulating.

Testing for adsorption/desorption may be conducted in accordance with OECD Guidelines no. 106.

The DID-list

The DID List is a joint list for the EU Ecolabel and Nordic Ecolabelling. The list is drawn up in collaboration with interested parties from industry and from consumer and environmental organisations. The list contains information on toxicity and degradability for a number of different substances that might be used in products within the field of chemical technology. The DID List does not show which substances are found in ecolabelled products.

The DID List cannot be used as documentation for the toxicity of individual substances in relation to the classification rules. In this case, information from safety data sheets, literature or the raw material manufacturers is to be used.

The DID List is available from the central Nordic Ecolabelling organisation or from each country's own website.

The DID List dated May 2014 is to be used for the purposes of these criteria.