

PROPOSAL CIRCULATED FOR COMMENT
relating to the Criteria Document

Swan labelling of

Laundry detergents for professional use

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14 October, 2005



Nordic Ecolabelling

The Nordic Council of Ministers decided in 1989 to introduce a voluntary official ecolabelling scheme, the Swan system. The organisations/enterprises below implement the Swan labelling system on behalf of the governments of the respective countries.

For more information, see the websites:

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Quotations may be used if the originator, Nordic Ecolabelling, is cited.

Swan labelling of Laundry detergents for professional use

Proposal circulated for comment relating to 093/1.0, 14 October, 2005

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What is a Swan-labelled laundry detergent for professional use?

A Swan-labelled laundry detergent for professional use or multi-component system is one of the least environmentally polluting options available. The product meets stringent requirements laid down concerning the environmental and health characteristics of the constituent substances and in terms of product quality and effectiveness. Swan-labelled detergents

- have a limited content of substances that are harmful to the environment and health,
- contain substances that are readily broken down in nature,
- are at least as effective as similar products with the same function,
- have an optimal dosage that is guaranteed with regular customer visits
- have environmentally adapted packaging.

After use, all detergents end up in nature even if the waste water has been treated. It is therefore important that all ingredients are broken down before they end up in nature. They must not be bioaccumulating and toxic so that they cannot disturb the ecosystem.

A number of fragrances are allergenic and environmentally harmful and certain preservatives may also induce allergies and accumulate in the environment while others are less harmful. Requirements are therefore laid down that limit or exclude the worst allergenic fragrances.

An important requirement for Swan-labelled laundry detergents for professional use is that they must function at least as well as equivalent, well tested products. By comparison, they must produce excellent results at the recommended dosage. This is checked at regular customer visits, saving both money and the environment.

Why choose Swan labelling?

- An enterprise that manufactures laundry detergents for professional use may use the trade mark Swan in its marketing. The Swan label is well known and very credible in the Nordic region.
- The Swan label is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- A more environmentally adapted activity often yields scope for reduced costs by, for example, reducing the consumption of environmentally harmful chemicals, energy and water and reducing the quantity of waste.
- Environmentally suitable operations prepare the manufacturer for future environmental legislation.

- Environmental issues are complex. It can take a long time and extensive resources to gain an understanding of a specific area. Swan labelling can be seen as aid in this work.
- The Swan label not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Swan licence can also be seen as a mark of quality.

What can be Swan-labelled?

The phrase ‘laundry detergents for professional use’ should be understood to mean products intended for laundering textiles in water by professional users like institutional/industrial users and other large-scale consumers.

The product group covers complete powders and complete liquid detergents as well as detergent systems based on components used to build up a complete detergent, a stock solution or a laundering for automatic dosing. This system is called a multi-component system, which may incorporate a number of products such as pre-wash agents, basic detergents, washing strengtheners, bleaching agents, rinsing agents and special detergents for laundering delicates.

The criteria do not cover special impregnating agents for water-repellent textiles and flame retardants.

Products intended purely for consumer use and sold only in grocery shops and consumer non-durable stores cannot be ecolabelled in accordance with these criteria. These are covered by the criteria document Ecolabelling of laundry detergents and stain removers, 006/5.0, December 2005.

How to apply




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

Environment and quality management requirements are marked with the letter "M" and a number, and are also mandatory.

The requirements section can also be used as a checklist. Each requirement is followed by two checkboxes – Yes and No – to indicate whether the requirement is met.

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
-  Enclose procedure in environmental and quality management system

Application

The application shall be sent to Nordic Ecolabelling in the country in which the applicant carries on activities. See page two for addresses. The application documents comprise an application form and documentation demonstrating fulfilment of the requirements (specified in the criteria).

Further information and assistance may be available. Visit the Web site of the national ecolabelling body for more information.

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 Swan labelled product.

Enquiries

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

What is required for Swan labelling?

To be granted Swan licensing, all requirements must be met. In the case of multi-component systems, every component must meet the Swan requirements for constituent chemicals. The total chemical content of a detergent system of this kind must meet requirements laid down concerning the total quantity of chemicals and limit values for all parameters in matrix calculations. A Swan-labelled multi-component system must as a minimum comprise the components needed for the multi-component system to launder properly in order to meet the effectiveness requirement.

1 Environmental requirements

The environmental requirements are divided into two parts. Section 1.1 contains general requirements to be met by all products. The requirements that apply to the total quantity in a complete detergent or in multi-component systems are set out in section 1.2.

The requirements in section 1 apply to all constituent substances unless otherwise mentioned. Constituent substances are taken to include all substances in products, including additives added (e.g. preservatives or stabilisers) in ingredients, but not contaminants from the production of raw materials. The term 'contaminants' should be understood to mean residues from production, which are incorporated in the finished raw material in concentrations of less than 0.01% (corresponding to 100 ppm), but not substances that have been added to a raw material deliberately for a specific function, regardless of the quantity.

The requirements in sections 1.1 and 1.2 are based on the recommended dosage quoted in grams of detergent/kg of articles for washing and vary according to the level of soiling of the wash.

1.1 General requirements (applies to all products)

R1 Description of the product

The applicant must provide detailed information on products that are to be Swan-labelled, including the following details:

- the name of the enterprise and where it is located
- annual turnover of products
- technical description of products

Description in accordance with the above.

R2 Formulation

Nordic Ecolabelling must be notified of the complete formulation of the product.

The complete formulation must set out the trade name, the chemical name, the quantity, the CAS number and DID number for each ingredient. The water content of ingredients and the function of each raw material must be specified.

The DID number is the number of the ingredient on the DID list that is to be used when determining chemical requirements. The DID list is available from Nordic Ecolabelling, see addresses on page 2

Safety data sheet/product data sheet for each ingredient in accordance with Directive 2001/158/EC.

R3 Classification of product

The product must not be classified as very toxic (T+), toxic (T), harmful to health (Xn) or irritating (Xi med R43) (May cause sensitisation by skin contact) or harmful to the environment (N).

The product may, however, be classified as (Xn with R22) (Harmful if swallowed).

The classification applies in accordance with Directive 67/548/EEC on substances and Directive 1999/45/EC on preparations with subsequent amendments and revisions.

Note that it is the manufacturer who is responsible for the classification

- Safety data sheet/product data sheet in accordance with Directive 2001/58/EC.

R4 CMR substances

Substances classified as carcinogenic (Carc with R40, R45 and/or R49), mutagenic (Mut with R46 and/or R68) and/or reproduction-toxic (Rep with R60, R61, R62 and/or R63) must not be incorporated in the product.

- See R2.

- Certify that the requirements are met (Appendix 1).

R5 Sensitising substances

Substances classified as sensitising with R42 and/or R43 must not be incorporated in the product.

Enzymes are exempted from this requirement, see in particular the requirement relating to enzymes R9.

Fragrances are exempted from this requirement, see in particular the requirements relating to fragrances R13-R14

- See R2.

- Certify that the requirements are met (Appendix 1).

R6 Surfactants, ready degradability

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

- Documentation that first of all refers to the DID list dated 30/06/2004 or later. In the case of surfactants not covered by the list, other documentation, e.g. test reports or literature references, may be used (Appendix 2).

The DID list: Detergents Ingredients Database.

R7 Surfactants, anaerobic degradability

All surfactants must be anaerobically degradable, which means at least 60% degradability under anaerobic conditions, according to ISO 11734, ECOTOC no. 28 (June 1988) or equivalent test methods.

- See R6.

R8 Enzymes

Enzymes must be liquid or take the form of non-dusting granules.

- Explanation from the manufacturer or notification on safety data sheet/product data sheet.

R9 Substances not permitted in the product

The substances listed below must not be included in the product

- Alkyl phenol ethoxylates (APEO) and/or alkyl phenol derivatives (APD)
- Boric acid and borates
- Reactive chlorine compounds, e.g. sodium hypochlorite or organic chlorine compounds
- DADMAC (dialkyl dimethyl ammonium chlorides that are cationic surfactants including DTDMAC (ditallow dimethyl ammonium chlorides), DSDMAC (distearyl dimethyl ammonium chlorides), and DHTDMAC (di(hydrogenated tallow alkyl)dimethyl ammonium chlorides)
- Optical brighteners
- NTA (Nitrilotriacetate)
- EDTA (Ethylene diamine tetraacetate and its salts)

The use of EDTA is exempted for laundering in Norway and in areas where there are rules and bans on phosphorus in laundering chemicals, see in particular requirement K27 in section 1.2.

- See R2.
- Certify that the requirements are met (Appendix 1).

R10 Colouring agents

The colouring agent may be added to liquid products if the colouring agent is approved as a food additive or is not bioaccumulable. The colouring agent is not considered to be bioaccumulable if $BCF < 100$ or $\log K_{ow} < 3$. Where there is information on both BCF and $\log K_{ow}$, the values for BCF must be used.

- Documentation for BCF or $\log K_{ow}$. Alternatively, give E number of food additive.

R11 Preservatives

Preservatives may be added in liquid products if the preservatives are not bioaccumulable. The substance is considered not to be bioaccumulable if $BCF < 100$ or $\log K_{ow} < 3$. Where there is information on both BCF and $\log K_{ow}$, values for BCF must be used.

- See R2. Documentation for BCF or $\log K_{ow}$.

Fragrances

R12 IFRA

Fragrances must be added in accordance with IFRA's guidelines.

IFRA's (International Fragrance Association) guidelines can be found on www.ifraorg.org/guidelines.asp

Completed and signed Appendix 1.

R13 Restriction/declaration

No more than 0.01% (100 ppm) of the product may be accounted for by fragrances covered by the requirements relating to declarations pursuant to Regulation No 648/2004/EC on detergents.

Alternatively, the fragrances covered by requirements relating to declarations pursuant to Regulation 648/2004/EC on detergents may be declared if they are present in the product in quantities of more than 0.001% (10 ppm).

In relation to detergents intended for use in industry, and not intended to be made available to the general public, the requirement is considered to be met if equivalent information is supplied via technical product data sheets, safety fact sheets or in some other suitable manner.

Description of the fragrance's content of the relevant fragrancing substances from the fragrance manufacturer.

Technical product data sheet or safety data sheet.

Packaging

R14 Recyclable packaging

The product must be supplied either in return containers or in reusable bags and cans. Packs of product supplies of less than 100 kg may be made of flammable material.

Description of packaging material in which laundering chemicals are supplied and the reuse and return system for packs.

R15 Labelling of plastic packaging

Plastic material must be labelled in accordance with DIN 6120, Part 2, or equivalent.

Certify that the requirement is met.

R16 Plastic packaging

PVC or other halogenated plastics must not be incorporated in either the packaging or the labelling.

Certificate showing that PVC or other chlorinated plastics are not present in the packaging or the labelling.

Dosage instructions

See also R13.

R17 Contents declaration

The contents declaration must conform to the instructions given in Regulation No 648/2004/EC on detergents.

Sample of packaging or labelling.

R18 Mandatory information

The recommended dosage for one kg of articles to be washed for different levels of soiling must be given in ml or g on the label or in a technical product data sheet. It must be clear for what type of wash the dosage is recommended.

Water hardness must be quoted in degrees of German hardness (dH°). Water hardness must be indicated in the ranges relevant for areas in which the product is sold.

See R17.

Technical product data sheet

1.2 Total content of laundering chemicals

The following requirements apply to all complete detergents or the total quantity of laundering chemicals in a multi-component system used in a washing programme to launder one kg of articles to be washed (g/kg of articles to be washed). All subproducts to be ecolabelled must be included in calculations. Note that complete detergents and all products included in a multi-component system must also meet all the requirements in section 1.1.

Dosage and limit values are dependent on the levels of soiling of the articles to be washed. All limit values exclude water.

Table 1 describes a common distribution of laundering textile groups according to levels of soiling.

Table 1. Examples of distribution of laundering textile groups according to levels of soiling

Light	Medium	Heavy
Hotel items, bed linen	Table linen Industrial towels Work clothing from light industry Entrance mats Towel rolls	Kitchens White and coloured protective garments from slaughterhouses and butchers Work clothing from mechanical industry Mops
Care items (articles for washing from hospitals and care institutions)		
Bed linen Blankets Leather	Protective garments Personal clothing Patient clothing Sheets	Knitwear Surgical textiles

R19 Contents of the multi-component system

Swan-labelled multi-component systems must as a minimum comprise the agents required for the multi-component system to launder and meet the requirement for effectiveness, section 1.4 requirements R33 or R34.

- Description of products included in multi-component system

R20 Formulation of detergent system

Complete formulation with recommended dosages of complete detergent or complete formulations of the washing programmes for multi-component systems must be specified for washing of every level of soiling.

- The complete formulation must set out the trade name, the chemical name, total quantities, the CAS number and DID number for each ingredient. The water content of ingredients and the function of each raw material must be specified.

The DID number is the number of the ingredient on the DID list that is to be used when determining chemical requirements. The DID list is available from Nordic Ecolabelling, see addresses on page 2

- Safety data sheet/product data sheet for each ingredient in accordance with Directive 2001/158/EC.

R21 TC (Total Chemicals)

The total quantity of chemicals in complete detergent or in the formulation of multi-component systems used in laundering programmes must meet the limit values laid down. All limit values exclude water.

Parameter	Symbol (unit)	Level of soiling of the washing		
		Light	Medium	Heavy
Total chemicals	TC (g/kg of articles to be washed)	10	20	35

- The manufacturer must specify the total chemicals quantity of the laundering chemicals. See R2 and R20.

R22 CDV (Critical Dilution Volume)

The critical dilution volume of the detergent or the multi-component system must not exceed the limit values set out below.

Parameter	Symbol (unit)	Level of soiling of the washing		
		Light	Medium	Heavy
Critical dilution volume	CDV (l/kg of articles to be washed)	150 000	300 000	450 000

- Calculations for the CDV value of complete detergents or multi-component systems. The parameters and calculation formulae needed for documenting the requirement are set out in Appendix 2.

Spreadsheets that can be used for calculations may be obtained from the Nordic Ecolabelling home pages.

R23 aNBO (Aerobic Non-Biodegradable Organics)

The total quantity of substances that are not aerobically readily degradable in complete detergents or in multi-component systems must not exceed the limit values set out below.

Parameter	Symbol (unit)	Level of soiling of the washing		
		Light	Medium	Heavy
Aerobic Non-Biodegradable Organics	aNBO (g/kg of articles to be washed)	0.75	1.0	1.5

- Calculations for aNBO. The parameters needed for documenting the requirement are set out in Appendix 2.

Spreadsheets that can be used for calculations may be obtained from the Nordic Ecolabelling home pages.

R24 anNBO (Anaerobic Non-Biodegradable Organics)

The total quantity of substances that are not anaerobically degradable in complete detergents or in multi-component systems must not exceed the limit values set out below.

Parameter	Symbol (unit)	Level of soiling of the washing		
		Light	Medium	Heavy
Anaerobic Non-Biodegradable Organics	anNBO (g/kg of articles to be washed)	0.75	1.0	1.5

- Calculations for anNBO. The parameters needed for documenting the requirement are set out in Appendix 2.

Spreadsheets that can be used for calculations may be obtained from the Nordic Ecolabelling home pages.

R25 Phosphorus

The total quantity of phosphates and other phosphorus compounds must not exceed the values set out below in P/kg of articles to be washed.

Parameter	Symbol (unit)	Level of soiling of the washing		
		Light	Medium	Heavy
Quantity of phosphorus	P (g/kg of articles to be washed)	0.75	1.5	2.5

Laundrying chemicals containing more phosphorus than what is allowed under the Norwegian regulations must not be sold and used in Norway or areas where there are rules and bans on phosphorus in laundrying chemicals.

Product regulations: FOR 2004-06-01 no. 922: Regulations on the restriction in use of chemicals and other products that are harmful to health and the environment. Sections: 3-9. Detergents – phosphorus content.

- The total quantity of elementary phosphorus in complete detergents or in multi-component systems.

R26 Complexing agents, Phosphonates/phosphonic acids

Phosphonates/phosphonic acids may, in total, be present in quantities of no more than 0.05 g/kg of articles to be washed.

- Total quantity of phosphonates/phosphonic acids in g/kg of articles to be washed.

R27 Complexing agents, EDTA

EDTA may be used for washing in Norway and in areas where there are rules and bans on phosphorus in laundering chemicals. In these areas, the quantity of EDTA g/kg of articles for washing must not exceed the limit values set out below.

Parameter	Symbol (unit)	Level of soiling of the washing		
		Light	Medium	Heavy
EDTA	EDTA (g/kg of articles to be washed)	0.3	0.4	0.5

- The total quantity of EDTA in laundering chemicals and certification from authorities that the use of phosphorus is limited or banned in areas in which the laundry is located. (Norwegian enterprises are exempted from the certification).

R28 Environmental danger

Substances that are classified as harmful to the environment may be present in limited quantities in total in complete detergents or in multi-component systems as set out in the table below.

Classification	Unit	Level of soiling of the washing		
		Light	Medium	Heavy
Σ R50/R53+R51/R53	g/kg of articles to be washed	0.015	0.015	0.015
Σ R52/R53	g/kg of articles to be washed	0.02	0.02	0.02
Σ R50	g/kg of articles to be washed	1.5	2.0	2.5

Classification: R50 Very toxic to water organisms. R51 Toxic to aquatic organisms. R52 Harmful to aquatic organisms. R53 May cause long-term adverse effects in the aquatic environment.

- Safety data sheet for every constituent raw material with details of the health risk and environmental risk of the substance (acute aquatic toxicity, degradability and/or bioaccumulating capacity). See R2.

If information is lacking on the substance environmental risk, the substance is classed as harmful to the environment R50/53.

1.3 Serviceability of the detergent

R29 Dosability

The product must have good dosability in automatic dosing systems.

Is documented by the applicant.

R30 Compressibility

The product in powder form must not compress in bags during the storage period. If lumps are formed, they must be friable and readily breakable.

Is documented by the applicant.

R31 Solubility

The product in powder form must be readily soluble for stock solutions.

Is documented by the applicant.

R32 Rinsing

The product must have good rinsing characteristics from the washing machine or dosing machine compartment.

Is documented by the applicant.

1.4 Effectiveness of the detergent

R33 Effectiveness

The complete detergent or the multi-component system must have satisfactory effectiveness with the recommended dosage for lightly, normally or heavily soiled washing.

The primary laundering effects of the detergent such as dirt removal, stain removal capacity and bleaching effect must be documented by the manufacturer/applicant with the aid of artificially soiled test pieces. Examples of what may be used as test pieces included the following:

- WFK-PCMS-55 for industrial laundering processes, consisting of 13 different small dirt patches (WFK-Cleaning Technology Research Institute, Germany)
- EMPA 102, consisting of 15 different fresh spots (Swiss EMPA-Testmaterials)
- or equivalent

Laundering effectiveness must be shown with the dosage for the same level of soiling as used in calculations.

The test must be conducted by an impartial laboratory or by the manufacturer's own laboratory to standard ISO 4312 and measurements must be performed on unlaundered and laundered test pieces. See requirements for test laboratory in Appendix 3.

Use of effectiveness tests in the Swan criteria for laundry detergents and stain removers, version 5.0

Effectiveness tests that have been used to document effectiveness in accordance with the Swan criteria for detergents and stain removers, 006/5.0 or later may be used for complete detergents that resemble detergents for household use.

- Report with measurement results for test pieces
- Report according to the Swan criteria for detergents and stain removers, 006/5.0. Alternatively, a test report in accordance with the Flower criteria must be issued (the test must be conducted in accordance with the modifications described in the criteria for laundry detergents and stain removers, 006/5.0).

R34 User test

Alternatively, the product must meet the requirements for the user test in accordance with Appendix 4.

Laundering effectiveness must be shown with the dosage for the same level of soiling as used in calculations.

- Report of user test in accordance with Appendix 4

1.5 Customer visits

R35 Customer visits

Customer visits to customers who use automatic dosing systems must be incorporated as a normal routine at manufacturers/suppliers. Customer visits must be performed during the term of the licence in accordance with the supplier's routines and in accordance with agreements with the customer in question.

In exceptional cases, customer visits may be dispensed with if the distance and method of delivery makes the visit difficult to perform from the practical point of view.

- Written description of how customer visits are normally performed. Who is responsible for the visits? How large a proportion of the customers receive visits, and how often?

R36 The visit report

The visit report is the supplier's ordinary visit report to his customers and must cover the following points:

- Information on the serviceability, dosability, compressibility, rinsing and solubility of the detergent
- Information on the dosing machine model
- Checks that maintenance instructions for dosing machines exist
- Measurement value of water hardness if softening is not used
- Information on dosages normally used for lightly, moderately and heavily soiled washing for water hardness levels of 0 – 6°dH (reference value)
- Information on actual dosing for lightly, moderately and heavily soiled washing

- Checks on the flow in automatic dosing system against the manufacturer's information
- Servicing of dosing equipment
- Any problems

Copy of dated, signed, fully completed visit reports from at least 5 customer visits covering the points referred to above.

2 Other requirements

2.1 Quality and regulatory requirements

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

If the licence holder'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.

M1 Swan licence person

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

A chart of the company's organizational structure detailing who is responsible for the above.

M2 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.

M3 Quality of the laundry detergent

The licensee must guarantee that the quality of the production of the Swan-labelled laundry detergent 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 Swan-labelled laundry detergent.

M4 Planned changes

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

Procedures detailing how planned changes are handled.

M5 **Unplanned nonconformities**

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

- Procedures detailing how unplanned nonconformities are handled.

M6 **Take-back system**

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

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

M7 **Legislation and regulations**

The licensee must guarantee adherence to safety regulations, working environment legislation, environmental legislation and conditions/concessions specific to the operations at all sites where the Swan-labelled product is manufactured.

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

M8 **Marketing**

Marketing of the Swan-labelled Laundry detergents for professional use must comply with "Regulations for Nordic Ecolabelling" 12 December 2001 or later versions.

- Appendix 5 duly completed.

Marketing

The Swan label is a very well-known and well-reputed trademark in the Nordic region. Swan-labelled products and services may be marketed using the Swan label 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 which products in the multi-component system that are ecolabelled.

More information on marketing can be found in " Regulations for Nordic Ecolabelling" 12 December 2001 or later versions.

Design of the Swan label

Design of the Swan label:



Licence number

Product for professional textile washing

Every licence is given a unique licence number that is to be used together with the labelling.

The labelling with the text below it may be applied to the packaging. Detergent, base detergent, washing strengthener, bleaching agent, etc. may be used instead of "Product".

For more about the design of the labelling, see "Rules for Nordic ecolabelling".

Sales in the rest of the Nordic region

If the licence is registered in another Nordic country, scope is granted to use the Swan label on a larger market. The following must then be submitted to Nordic Ecolabelling:

- form for sales in the rest of the Nordic region
- copy of licence
- turnover of the product in the country of registration
- documentation showing in which system for recovery the manufacturer is intended to participate
- copy of labelling and the product safety data sheet
- any marketing material for the country of registration

The registration is free of charge, but annual charges must be paid in accordance with the respective country's charging rules.

Follow-up inspections

Nordic Ecolabelling may decide to check whether the product fulfils Swan 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.

How long is a licence valid?

Nordic Ecolabelling adopted the criteria for "Laundry detergents for professional use" on DAY March 2006. 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.

Appendix 1A

The detergent manufacturer's/supplier's declaration concerning the product's content of banned substances

Product name: _____

Manufacturer/importer: _____

We (supplier/manufacturer of the product) certify that the following substances are not incorporated in the product

- Alkyl phenol ethoxylates (APEO) and alkyl phenol derivatives (APD)
- Reactive chlorine compounds
- Boric acid and borates
- DADMAC (dialkyl dimethyl ammonium chlorides that are cationic surfactants, comprising:
 - DTDMAC (Ditallow dimethyl ammonium chlorides),
 - DSDMAC (distearyl dimethyl ammonium chlorides),
 - DHTDMAC (Di(hydrogenated tallow alkyl)dimethyl ammonium chlorides)
- Optical brighteners
- NTA (Nitrilotriacetate)
- EDTA (Ethylene diamine tetraacetate and its salts)

We certify that the addition of fragrances follows IFRA's guidelines

Manufacturer's/Supplier's signature

Place and date

Enterprise

Signature, contact

Name in block letters

Tel.

Appendix 1B

The manufacturer's/supplier's declaration concerning raw material content

Name of the raw material: _____

Manufacturer/importer: _____

We (supplier/manufacturer of raw material) certify that the following substances are not incorporated in the raw material

- Substances classified as carcinogenic (Carc with R40, R45 and/or R49), mutagenic (Mut with R46 and/or R68) and/or reproduction-toxic (Rep with R60, R61, R62 and/or R63)
- Substances classified as sensitising with R42 and/or R43 must not be present in the product. Enzymes and fragrances are exempted.
- Alkyl phenol ethoxylates (APEO) and alkyl phenol derivatives (APD)
- Linear alkyl benzene sulphonates (LAS)
- Reactive chlorine compounds
- Boric acid and borates
- DADMAC (dialkyl dimethyl ammonium chlorides that are cationic surfactants, comprising:
 - DTDMAC (Ditallow dimethyl ammonium chlorides),
 - DSDMAC (distearyl dimethyl ammonium chlorides),
 - DHTDMAC (Di(hydrogenated tallow alkyl) dimethyl ammonium chlorides)
- NTA (Nitrilotriacetate) and EDTA (Ethylene diamine tetraacetate and its salts)

The manufacturer's/Supplier's signature

Place and date

Enterprise

Signature, contact

Name in block letters

Tel.

Appendix 2

Parameters and formulae needed to document the total content of detergents in accordance with section 1.2

1. Total chemicals, TC

TC = the total quantity of chemicals that may be used in g/kg of articles to be washed.

The total quantity of chemicals in complete detergents or in the formulation of multi-component systems used in washing programmes for laundering per kg of articles to be washed. All limit values exclude water.

- Account of all substances with precise content details excluding water.

2. Critical dilution volume

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

$$(a) \quad CDV = 1000 * \sum \text{dosage}(i) DF(i)/TF(i)$$

Dosage(i) = Dosage of component i, expressed in g/kg of articles to be washed

DF(i) = Degradation factor for component i.

TF(i) = Toxicity factor for component i.

2.1 Method for determining parameter values for components not on the chemicals list

The specified parameter values must as a rule be used for all components on the "Detergents Ingredients Database (version 30 June 2004 Part A)" chemicals list. An exception is made, however, for fragrances and colouring agents, where additional test results are approved (see the footnote in Part A).

The following method must be adopted for components not on the chemicals list:

Toxicity in aquatic environment

Within Nordic Ecolabelling, CDV is calculated on the basis of the acute toxicity factor and the acute 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 one and 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 median value for the trophic levels.
- TF_{acute} must be 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. SF is determined as follows:

Data	Safety factor (SF)	Toxicity factor (TF)
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 three trophic levels in the basic stock	1 000	Toxicity/1 000
A 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 (usually fish, crustaceans and algae) representing three trophic levels	10	Toxicity/10

The basic stock for testing the toxicity of substances for aquatic organisms consists of acute tests on fish, daphnids and algae.

Degradation factor

The degradation factor is defined as follows:

Table 1. Degradation factor (DF)

	DF
Readily biodegradable (*)	0.05
Readily biodegradable (**)	0.15
Potentially degradable	0.5
Permanent (Long-lived)	1

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

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

In the case of inorganic components, DF is laid down 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.
- Account of the calculations of the CDV formula (a) for every ingredient and CDV for complete detergent or multi-component system.
- For substances not on the DID list, it must be clearly apparent which values are used in formula (a).

3. Aerobic non-biodegradable organics, aNBO

Aerobic non-biodegradable organics, aNBO, are organic substances that do not meet the criteria for degradability. The value for aNBO is quoted as the total quantity of non-readily degradable substances per kg of articles to be washed.

On the chemicals list (the DID list), the substances have been classified in one of the following classes:

Category	Code
Readily biodegradable	R
Potentially biodegradable, but not readily biodegradable	I
Permanent (long-lived)	P
Not tested for biodegradability under aerobic conditions	O

Organics with a classification of I and P or O are classed as aNBO unless the result of degradation tests for untested substances is substantiated.

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

Classification	Test method	BOD or CO ₂	DOC
Readily degradable	301 A-F	≥ 60%	≥ 70%
Potentially degradable	302 A-C		≥ 70%

BOD (Biological oxygen demand)

DOC (Chemical oxygen demand)

4. Anaerobic non-degradable organics, anNBO

Anaerobic non-degradable organics, anNBO, are organic compounds that are not degraded under oxygen-deficient conditions. The value, anNBO, is quoted as the total quantity of anaerobic non-degradable organics in g/kg of articles to be washed.

On the DID list, substances have been classified in one of 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 untested: degradability established via analogy comparisons, etc.	Y
Untested for biodegradability under anaerobic conditions	0

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

If the substance is not on the DID list, anaerobic breakdown of the substance must be documented. All substances that are not anaerobically degradable pursuant to ISO 11734, ECETOC no. 28 June 1988 or another 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 106.

Appendix 3

Analysis and test laboratories

Requirements concerning the analysis laboratory

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

The applicant's analysis laboratory/measurement may be approved to conduct analyses and measurements if:

- the authorities monitor the sampling and analysis process, or
- the manufacturer has a quality system incorporating testing and analyses and which is certified in accordance with ISO 9001 or ISO 9002, or
- the manufacturer can show that there is conformity between a first-time test conducted as a parallel test between an impartial test institution and the manufacturer's own laboratory 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.

- It must be possible for ecolabelling organisations to monitor the performance of testing
- The ecolabelling organisation must have access to all data on the product
- The samples must be de-identified for the test laboratory
- Performance of the effectiveness test must be described in the quality control system.

Appendix 4

Requirements concerning the User test

1. Responses must be obtained from at least 5 test centres representing a random selection of customers.
2. The procedure and dosage must conform to the manufacturer's recommendations.
3. The test period must continue for at least 4 weeks.
4. Every test centre must assess the serviceability of the product or multi-component system, dosability, compressibility, rinsing and solubility
5. Every test centre must assess the effectiveness of the product or multi-component system by answering questions relating to the following aspects (or similar formulations):
 - Ability to launder lightly, moderately or heavily soiled articles to be washed
 - An assessment of primary laundering effects such as dirt removal, stain removal capacity and bleaching effect must be rated
 - Assessment of secondary laundering effects such as greying of white washing and colour-fastness and staining of coloured washing
 - Assessment of the effect of the rinsing agent on drying, ironing or mangling of the articles to be washed
 - How satisfied the test subject is with customer visiting arrangements
6. The response must be rated on a scale comprising at least 3 levels.
7. For example, "insufficiently effective", "sufficiently effective" or "very effective". With regard to how satisfied the test centre is with visit reporting arrangements, the categories must be "not satisfied", "satisfied" and "very satisfied".
8. At least 5 test centres must submit responses. At least 80% must rate the product as sufficiently effective or very effective on all points (see point 4) and be satisfied or very satisfied with customer visiting arrangements.
9. All raw data from the test must be specified.
10. The test procedure must be described in detail.

Appendix 5

Marketing of Swan-labelled Laundry detergents for professional use

We hereby certify that we are well acquainted with the regulations governing the use of the Nordic Swan ecolabel, as detailed in "Regulations for Nordic Ecolabelling" 12 December 2001 or later versions. We agree to follow these regulations when marketing the Swan-labelled Laundry detergents for professional use.

Further, we confirm that we are familiar with the criteria document regarding the Swan labelling of Laundry detergents for professional use.

We undertake to advise those individuals within the company involved in marketing the Swan-labelled Laundry detergents for professional use of the criteria for the Swan labelling of Laundry detergents for professional use and "Regulations for Nordic Ecolabelling" 12 December 2001 or later versions.

Date och place

Company

Signature, contact person

Clarification of name

Phone

Signature, marketing director

Clarification of name

Phone

In case of a change in personnel, a new declaration must be submitted to Nordic Ecolabelling