

Nordic Ecolabelling of

Floor care products

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In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Ecolabel “the Swan”. These organisations/companies operate the Nordic Ecolabel on behalf of their own country’s government. For more information, see the websites.

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What is a Nordic Ecolabelled floor care product?

Nordic Ecolabelled floor care products are among the least environmentally polluting products of their kind as they meet a number of environmental requirements.

The greatest environmental pollution from the use of floor care products arises when the products, during cleaning or complete removal, end up in wastewater and are discharged to treatment plants and then into the aquatic environment. By imposing requirements on the constituent substances, the pollution of the external environment can be reduced. In addition, requirements are laid down concerning specific constituents and the evaporation of organic solvents during application, reducing the risk of health problems for people coming into contact with the product. In addition, requirements are imposed on the effectiveness of the products and the procedures in place to secure their quality.

Why choose the Nordic Ecolabel?

- Floor care product manufacturers may use the Swan trade mark for marketing. The Nordic Ecolabel is a widely known and well-reputed trade mark in the Nordic region.
- The Nordic Ecolabel is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- Environmentally-friendly production operations prepare the floor care product manufacturer for future environmental legislation.
- Environmental issues are complex. It can take time to gain an understanding of a specific area. Nordic Ecolabelling can be seen as an 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 Swan licence can also be seen as a mark of quality.

What products can carry the Nordic Ecolabel?

Floor care products are in this context defined as products intended exclusively for indoor use that apply a film of polymers or wax to floors to ease maintenance and protect the floor. In this context, floor care products include polish removers and wax removers used to remove the film of polymer or wax from the floor.

Floor care products include base coat polish, floor polish, wash polish, floor wax, wash and-wax care products, polish removers and wax removers. (See the glossary in Appendix 1).

Both products for professional users and products for consumers in general are included in the criteria for floor care products. A product is included in the group (professional/private) towards which it is marketed. If a product is sold to both user groups, it is assessed in the function test as a professional product.

Products that have cleaning properties only (e.g. non-wax wash care products) and products in which film formation takes place as a reaction between fatty acids and lime cannot be Nordic Ecolabelled according to this product group.

How to apply

Applicants must take as a point of departure "Rules on the Nordic Ecolabelling of products" and the ecolabelling requirements in this document.

Each requirement is labelled with the letter R (= requirement) and a number.

Icons in the text

The text describes how the applicant is to 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 must be sent to Nordic Ecolabelling in the country in which the floor care product is sold. 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.

Sales in other Nordic countries

Registering the licence in another Nordic country allows the Nordic Ecolabel to be used on a larger market. To do so, the following must be submitted to Nordic Ecolabelling:

- Application form for registration, alternatively a Nordic application form for use in the initial application *
- Copy of the licence
- Copy of the label and instructions for use in the language in question

- Documentation of compliance with any special national requirements in the country of registration (e.g. the system for recycling packaging that the floor care product is assumed to be encompassed by)
- Marketing material, where applicable, for the country of registration
- Information on the supplier/distributor in the country of registration, if other than the licence holder
- For Norway: documentation of fulfilment of the Norwegian regulations governing phosphorous in detergents

Registration is free of charge but an annual fee is payable in accordance with the national regulations.

* If the applicant states at the time of application that the product will be registered in other Nordic countries, it will not be necessary to submit further material for registration (see above). If so, Nordic Ecolabelling will compile and forward the above documentation to the various countries in which the product is to be registered.

On-site inspection

Before a licence is granted, 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 floor care 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 Nordic Ecolabelling?

To be awarded a Nordic Ecolabel licence:

- All mandatory requirements must be fulfilled.
- Nordic Ecolabelling must conduct an on-site inspection.

1. Environmental requirements applicable to all floor care products

The requirements below apply to all floor care products except where they are specifically stated to apply only to particular floor care products. The requirements apply to all constituent substances, save as otherwise specified in the requirement.

Constituent substances are all substances in the product including additives in ingredients (e.g. preservatives and stabilisers) as well as substances known to release gases (e.g. formaldehyde), but not pollutants originating in raw material production save as otherwise specified in the requirement.

Pollutants are traces from raw material production present in the product in concentrations of less than 0.010w/w % (equivalent to 100 ppm), but not substances added to a raw material deliberately for a purpose. Please note that in some requirements pollutants are included if they are present in the raw material in quantities in excess of 0.010w/w %.

Please note that the product must at all times fulfil all mandatory requirements – accordingly an exemption specified in a particular requirement will not constitute a general exception from the mandatory requirements.

R1 Description of the product

Description of the product and use of the product in relation to the product descriptions in "What products can carry the Nordic Ecolabel".

Nordic Ecolabelling must be provided with the full formulation of the product. The following must be specified for all constituent substances:

- Trade name
- Chemical name/names (if a trade name comprises multiple constituent substances)
- Hazard classification in accordance with Directive 67/548/EEC and Directive 1999/45/EC with subsequent amendments and adaptations or Regulation No. 1272/2008 (for each individual raw material and each individual constituent substance)
- Function
- CAS No.
- DID No. (Detergent Ingredient Database, see Appendix 2)
- The active percentage of constituent substances
- Presence in "mixture formulation" and "product formulation", respectively (see the proposal for formulation structure in the background document)

- Description of the product and its use
- Complete formulation as specified in the requirement
- Duly completed and signed declaration by the manufacturer of the floor care product (Appendix 3)

R2 Classification of the product

The product must not be classified as classified in Appendix 5.

Note that the manufacturer is responsible for the classification.

- Safety data sheets for the product in accordance with Annex II of REACH (1907/2006/EC) or subsequent amendments and adaptations.
- Safety data sheet for all raw materials in accordance with Annex II of REACH (1907/2006/EC) or subsequent amendments and adaptations.

R3 CMR substances

The floor care product must not contain constituent substances that are or might release substances that are classified as carcinogenic (Carc), mutagenic (Mut) or toxic for reproduction (Rep) with the following risk/hazard phrases:

- R40/H351
- R45/H350
- R46/H340
- R49/H350i
- R60/H360F
- R61/H360D
- R62/H361f
- R63/H361d
- R64/H362
- R68/H341
- Combinations of the R phrases as well as the combinations H360FD, H361fd, H360Fd, H360Df

Please note that pollutants present in quantities in excess of 100 ppm (0.010 w/w%) in the raw material are not exempted from this requirement. The only exemption applies to NTA as a pollutant in raw materials – see R11.

Classification in accordance with the Dangerous Substances Directive 67/548/EEC will apply during the transitional period to Directive No. 1272/2008 from December 2010 to June 2015. See the explicit translation in Appendix 6.

- Duly completed and signed declaration by the manufacturer of the floor care product for each raw material (Appendix 3)
- Duly completed and signed declaration by the raw material producer (Appendix 4).

R4 Volatile organic substances

The total concentration of volatile organic substances in the product, including halogenated and aromatic solvents must not exceed 0.010 w/w%. Volatile organic substances including halogenated and/or aromatic solvents must be understood as substances defined as VOC in accordance with 1999/13/EC, i.e. substances that at 20°C have a vapour pressure >0.010 kPa.

Please note that pollutants present in quantities in excess of 100 ppm (0.010 w/w%) in the raw material are not exempted from this requirement.

- Duly completed and signed declaration by the manufacturer of the floor care product (Appendix 3).
- Duly completed and signed declaration by the raw material producer (Appendix 4)

R5 Compliance with administrative standards for volatile substances

When the products are used as intended, the administrative standards for volatile substances must not be exceeded.

This requirement can be documented in two ways: By means of a 0 ventilation test or by measurement during normal conditions of use (see Appendix 2 to this criteria document under "Measurement of evaporation rate"). If the 0 ventilation test is applied, a calculation model as specified in Appendix 3 is to be used.

*The administrative standards are available from the following internet addresses:
Denmark: <http://www.at.dk/sw6796.asp>, Sweden:*

www.av.se/regler/afs/2000_4.pdf

Norway: <http://www.arbeidstilsynet.no/regelverk/veiledninger/veil361.html>, Finland: www.stm.fi/Resource.phx/publishing/store/2005/04/hm1113392554181/passthru.pdf

- Documentation that demonstrates that administrative standards for organic solvents have not been exceeded in any Nordic country

R6 Preservatives

Preservatives present in the product must not be bioaccumulable BCF<500 or logKow<4. If a measured BCF-value is available, the highest measured value must be used instead of logKow. Preservatives must be added only to preserve the raw material or product, not to serve a disinfectant or antimicrobial function.

- Documentation of BCF or logKow.
- Duly completed and signed declaration by the manufacturer of the floor care product (Appendix 3).
- Duly completed and signed declaration by the raw material producer (Appendix 4)

R7 Optimisation of preservatives

Preservatives added to the product must be optimised in relation to the volume of the product and a "Challenge test" (see Appendix 2) showing this must be performed.

- Test report for the performance of the "Challenge test" showing optimal use of preservatives.

R8 Surfactants, aerobic degradability

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

Exempted from this requirement are ingredient emulsifiers/levelling agents (max. 10 mg/g active content) in floor care products without a cleaning effect (see R13), fluorosurfactants with a fluorinated carbon chain of less than or equal to 5 C atoms (maximum 0.025 w/w%) in base coat polish and floor polish (see R14) and silicone surfactants (maximum 0.25 w/w%) in base coat polish and floor polish (see R15).

Note that floor care products with a cleaning effect are covered by the Detergents Regulation.

- Documentation that surfactants in the floor care product are readily degradable in accordance with the above.

R9 Surfactants, anaerobic degradability

All surfactants in the floor care product must be anaerobically degradable, which means at least 60% degradability under anaerobic conditions, in accordance with the DID list, ISO 11734, ECOTOC no. 28 (June 1988) or equivalent test methods.

Exempted from this requirement are ingredient emulsifiers/levelling agents (max. 10 mg/g active content) in floor care products without a cleaning effect (see R13), fluorosurfactants with a fluorinated carbon chain of less than or equal to 5 C atoms (maximum 0.025 w/w%) in base coat polish and floor polish (see R14) and silicone surfactants (maximum 0.25 w/w%) in base coat polish and floor polish (see R15).

- Documentation that surfactants in the floor care product are anaerobically degradable in accordance with the above.

R10 Environmentally harmful substances

The total quantity of chemical substances that meet the criteria for environmental hazardousness (N or without a symbol (R52/53/H412 and/or R53/H413)) present in the product must not exceed 100 mg/g active content.

Exempted from this requirement are polish and wax removers where the total quantity of chemical substances that fulfil the criteria for environmental hazardousness (N or without a symbol (R52/53/H412 and/or R53/H413)) present in the product must not exceed 2.0 w/w% active content.

This requirement also applies to substances that have proven to form persistent environmentally harmful breakdown products under relevant conditions.

High-molecular substances (molecular weight > 700, lowest calculated section >9.5 Å or length > 5.5 mm) are exempted from the requirement, if they are classified only as R53/H413 (and not R52/53/H412 or N).

If softeners (does not apply to phthalates) are present in products with a cleaning effect and fulfil the requirements as to environmental hazard (N or without a symbol) the total quantity of chemical substances that fulfil the requirements for environmental hazard (N or without a symbol) must not be present in the product in concentrations in excess of 160 mg/g active content.

In polish and wax remover softeners must not be present in raw materials or the product itself.

Classification in accordance with the Dangerous Substances Directive 67/548/EEC will apply during the transitional period to Directive No. 1272/2008 from December 2010 to June 2015. See the explicit translation in Appendix 6.

- Duly completed and signed declaration by the manufacturer of the floor care product on whether softeners are present in the product and on the presence in the product of substances that may form persistent environmentally harmful degradation products (Appendix 3).
- Duly completed and signed declaration by the raw material producer on the presence in raw materials of substances that may form persistent environmentally harmful degradation products (Appendix 4).
- The applicant must submit test results, at the very least in the form of a safety data sheet/product sheet in accordance with Directive 2001/58/EC for all ingredients in the product, setting out results for ecotoxicological testing, degradability and bioaccumulation, performed in accordance with the OECD's test methods. See test methods for ecotoxicity, degradability and bioaccumulation in Appendix 2 to this criteria document.

R11 Complexing agents

Complexing agents such as EDTA (ethylene diamine-tetraacetate), DTPA (diethylene triamine pentaacetate), NTA and phosphonates must not be present in ingredients/raw materials or the products: base coat polish, floor polish, wash polish, floor wax and wash-care products containing wax, polish remover and wax remover.

Exempted from this requirement are NTA as a pollutant in complexing agents of the types MGDA and GLDA, where NTA may be present in quantities <1.0 w/w% in the raw material, but always such that the concentration in the finished product is <0.100 w/w%.

In polish remover and wax remover phosphorous may be present in a maximum quantity of 0.20 w/w% in the product.

- Duly completed and signed declaration by the manufacturer of the floor care product (Appendix 3).
- Duly completed and signed declaration by the raw material producer (Appendix 4)

R12 Residual monomers in polymers

The total content of monomers classified in accordance with Appendix 6 must not exceed 100 mg/kg polymers (100 ppm) measured on newly produced polymer dispersion.

Please note that pollutants present in quantities in excess of 100 ppm (0.010 w/w%) in the raw material are not exempted from this requirement.

- Declaration from the raw material producer (Appendix x) on the classified monomers present in the raw material and the quantities in which each is present.

R13 Ingredient emulsifiers and levelling agents in base coat polish and floor polish

The total concentration of ingredient emulsifiers and levelling agents that are not aerobically and anaerobically degradable according to R8 and R9 must not exceed 10 mg/g active content in base coat polish and floor polish.

Note that if fluorosurfactants are used as ingredient emulsifiers or levelling agents R19 must also be fulfilled.

Note that if silicone surfactants are used as ingredient emulsifiers or levelling agents R20 must also be fulfilled.

Note that floor care products with a cleaning effect are covered by the Detergents Regulation.

- In the case of floor care products with a cleaning effect: Declaration duly completed and signed by the manufacturer of the floor care product that the product does not contain ingredient emulsifiers and levelling agents (Appendix 3).
- In the case of base coat polish and floor polish: Statement specifying the number of ingredient emulsifiers and levelling agents in the product and documentation of the aerobic and anaerobic degradability of ingredient emulsifiers and levelling agents.
- In the case of base coat polish and floor polish: Statement showing that the total concentration of non-aerobically and anaerobically degradable ingredient emulsifiers and levelling agents does not exceed 10 mg/g active content.

R14 Fluorosurfactants in base coat polish and floor polish

Fluorosurfactants in base coat polish and floor polish are exempted from R8 and R9.

Fluorosurfactants must only be combined in a quantity corresponding to 0.025 w/w% in base coat polish and floor polish.

Fluorosurfactants added to the product must have a fluorinated carbon chain of less than or equal to 5 C atoms.

Exception: If the product contains silicone surfactants fluorosurfactants must not be present in the product.

- In the case of floor care products with a cleaning effect: Declaration duly completed and signed by the manufacturer of the floor care product that the product does not contain surfactants (Appendix 3).
- In the case of base coat polish and floor polish: Statement of the quantity of fluorosurfactants in the products confirming that the concentration does not exceed 0.025 w/w%.
- Documentation from the raw material producer showing that the carbon chain of fluorosurfactants is less than or equal to 5.

R15 Silicone surfactants in base coat polish and floor polish

Silicone surfactants in base coat polish and floor polish are exempted from R8 and R9.

Silicone surfactants must only be present in quantities equivalent to 0.25 w/w% in base coat polish and floor polish.

Exception: If the product contains flourinated surfactants, silicone surfactants must not be present in the product.

- In the case of floor care products with a cleaning effect: Declaration duly completed and signed by the manufacturer of the floor care product that the product does not contain silicone surfactants (Appendix 3).
- In the case of base coat polish and floor polish: Statement showing that the total concentration of silicone surfacants in the product does not exceed 0.25 w/w %

R16 CDV calculation

CDV (critical dilution volume) must be determined for all ingredients for the maximum dosage recommended apart from high-molecular substances (molecular weight > 700, lowest calculated section >9.5 Å or length > 5.5 mm).

CDV must not exceed 14000 litres per litre of in-use solution calculated on the basis of chronic data.

- Calculation of CDV. (See Appendix 2 for guidelines.)
- Documentation of information not found on the DID list.

R17 Other requirements applicable to ingoing chemical substances

The product must not contain the following substances:

- Perfume
- Phthalates
- Dyestuffs and pigments
- APEO (alkylphenolethoxylates) and derivates thereof or LAS (linear alkylbenzene sulphonates)
- Nanomaterials/particles (deliberately produced microscopic particles with dimensions of less than 100 nanometers) for example ZnO, TiO₂, SiO₂ and Ag must not be present in raw materials or the product.

- Duly completed and signed declaration by the manufacturer of the floor care product (Appendix 3).
- Duly completed and signed declaration by the raw material producer (Appendix 4).

2. Requirements concerning packaging

R18 Marking of packaging

To facilitate identification in the event of recycling, primary packaging made of plastic must be labelled in accordance with DIN 6120, Part 2 or equivalent provisions. Caps and pumps are exempted from this requirement.

Packaging (including labels) must not contain PVC or plastics based on other types of chlorinated materials.

- Documentation shall mean that the primary packing is labelled in accordance with DIN 6120, Part 2 or equivalent provisions.
- Declaration by the manufacturer of the packaging confirming that it does not contain PVC and is not based on other types of chlorinated material.
- Declaration by the manufacturer of the labelling that does not contain PVC and is not based on other types of chlorinated material.

R19 Weight Utility Ratio

All products must meet the following primary packaging requirements.

$$WUR = \text{SUM} ((W_i + U_i)/D_i) < X$$

where X = 2.5 g/g active content for consumer products and

X = 1.0 g/g active content for professional products

W_i = The weight of the packaging component i in (gram)

U_i = The weight of unrecirculated material in the packaging component i in (gram)

D_i = The product's content of active components (gram)

- Calculation of WUR.
- Documentation from the packaging manufacturer of the quantity of recycled material in the packaging components.

3. Requirements concerning effectiveness

R20 Effectiveness

The effectiveness of the product must be documented in accordance with Appendix 8 for professional products and Appendix 9 for consumer products. In the case of applications for a Nordic Ecolabel for base coat polish, these must be tested together with another polish (“top polish”).

Requirements concerning effectiveness are set out under the respective methods in Appendixes 8 and 9.



1. For floor polish for professional users:

Either: Documentation of laboratory testing and field testing (Appendix 8, Part 1)

Or: Documentation of user testing (Appendix 8, Part 5 and Table 6-1)

2. For wash polish/wash and wax care products for professional use:

Either: Documentation of laboratory testing (Appendix 8, Part 3)

Or: Documentation of user testing (Appendix 8, Part 5 and Table 6-2)

3. For base coat polish for professional use:

Either: Documentation of laboratory testing. The base coat polish is tested together with a “top polish” as under points 1 and 2. Recoatability is tested for the base coat polish alone.

Or: Documentation of user testing of base coat polish alone (Appendix 8, Part 5 and Table 6-3). In addition, a user test for base coat polish in combination with another polish/floor care product.

4. For polish removers and wash removers for professional use:

Either: Documentation of laboratory testing and field testing (Appendix 8, Part 4)

Or: Documentation of user testing (Appendix 8, Part 5 and table 6-4)

5. For floor polish for consumers:

Documentation of both laboratory testing and field testing (Appendix 8, Part 1)

Floor polish products for consumers that pass the user test for professional products need not undergo additional effectiveness testing.

Products approved for professional use, and which are to be marketed as consumer products, need not undergo additional effectiveness testing.

6. For wash polish/wash care products for consumers:

Documentation of laboratory testing (Appendix 9, Part 2)

Wash polish /wash care products for consumers that pass the user test for professional products need not undergo additional effectiveness testing.

Products approved for professional use, and which are to be marketed as consumer products, need not undergo additional effectiveness testing.

7. For polish removers and wax removers for consumers:

Documentation of laboratory testing as described in point 4 of this requirement: “For polish removers and wax removers for professional use”.

4. Information for users

R21 Information text for the product

The information text on the packaging/in the product sheet for the product must comply with the EU provisions on the declaration of contents (No 648/2004, Annex VII). The application of the product or the product type must be clearly indicated in the information text and there must be user guidance for all applications for the product.

EU provisions on the declaration of contents: Regulation (EC) No 648/2004 of the European Parliament and of the Council, Annex VII.

- Sample of written information on the product (safety data sheet, product sheet and label) showing the entire information text.

R22 Dosage instructions

If the product needs to be diluted before use, dosage ranges must be indicated on the labels of both consumer products and products for professionals.
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Consumer products that need to be diluted before use must be accompanied by dosage instructions for the product, so that correct dosing is ensured.

The product must be supplied with a recommendation on application and removal.

The product data sheet or the label must state the length of time to wait before applying a new coat of paint in order that the administrative standards are not exceeded (see R5).

- A copy of the label and the product data sheet, where applicable, setting out the above information.
- In the case of consumer products, a copy of the dosing instructions which ensure correct dosing must also be enclosed.

5. Quality and official requirements

To ensure that the Nordic Ecoalbel requirements are met the following procedures must be implemented.

If the floor care product manufacturer has a certified environmental management system in accordance with ISO 14 001 or EMAS in which the following procedures are implemented, it is sufficient for the accredited auditor to confirm that the requirements are implemented.

R23 Person responsible for the Nordic Ecolabel

One person at the enterprise must have responsibility for ensuring that the Nordic Ecolabel requirements are fulfilled, and one person must act as a contact with Nordic Ecolabelling.

- Organisational structure showing those responsible for the above.

R24 Documentation

The licence holder must be able to produce a copy of the application and data and calculation material (including test reports, documents from subcontractors and the like) for the documentation submitted in connection with the application.

☺ Checked on site.

R25 Quality of the floor care product

The licence holder must guarantee that the quality of the Nordic Ecolabelled floor care product will not deteriorate during the period of validity of the licence.

☒ Procedures for formulating and, where necessary, taking care of claims/complaints concerning the quality of the Nordic Ecolabelled floor care products.

R26 Planned changes

Planned changes that affect the Nordic Ecolabel requirements must be reported in writing to Nordic Ecolabelling.

☒ Procedures showing how planned changes are handled.

R27 Unforeseen non-conformities

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

☒ Procedures showing how unforeseen non-conformities are handled.

R28 Traceability

The licence holder must be able to trace the Nordic Ecolabelled floor care product in the production process.

☒ Description/routines for how the requirement is met.

R29 Return system

Relevant national rules, laws and/or industry agreements concerning return systems for products and packaging must be observed in the Nordic countries in which the Nordic Ecolabelled floor care products are marketed.

☒ Documentation from the applicant on affiliation to existing agreements on recycling/processing.

R30 Laws and regulations

The licence holder must guarantee adherence to safety regulations, working environment legislation, environmental legislation and conditions/permits specific to the operations at all production sites for the Nordic Ecolabelled product.

☒ Duly completed and signed application form.

R31 Marketing

The marketing of Nordic Ecolabelled floor care products must comply with "Rules on Nordic Ecolabelling" 22 June 2011 or later versions.

☒ Duly completed Appendix 10.

Marketing

The Nordic Ecolabel is a widely known and well-reputed trade mark in the Nordic region. Nordic Ecolabelled products and services may be marketed using the Nordic Ecolabel for as long as the associated licence remains in force.

The label must be positioned in such a way that there is no doubt about what the label denotes and so that it is clear that the floor care product is ecolabelled.

More information on marketing can be found in “Rules on Nordic Ecolabelling” 22 June 2011 or later versions.

Design of the Nordic Ecolabel

The design of the Nordic Ecolabel is as follows:



licence number

Each licence has a unique licence number that must be displayed in conjunction with the label. More information on the design of the label can be found in “Regulations for Nordic Ecolabelling” 22 June 2011 or later versions.

Follow-up inspections

Nordic Ecolabelling may also check that the floor care product meets the Nordic Ecolabel requirements after a licence has been granted. This may involve a site visit, random sampling or a similar test.

The licence may be revoked if it is evident that the floor care 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?

This is a consultation document for version 4 of the criteria – no licence will be awarded in accordance with these criteria.

The following applies to adopted criteria:

The Nordic Ecolabel licence will continue to apply for as long as 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 will automatically be extended and the licensee informed.

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

New criteria

At the next revision the following possibilities will be reviewed:

- The possibility of prohibiting preservatives in floor care products
- The possibility of extending the product group to include water glass products and outdoor products on the basis of new RPS for all products
- Increasing the stringency of the requirements applicable to CDV and VNF
- Increasing the stringency of the requirement applicable to the environmental properties of silicone surfactants and fluorosurfactants
- Increasing the stringency of the requirements applicable to environmentally harmful substances
- Consider the possibility of updating test requirements

Appendix 1 Definitions

Base coat polish:	A floor polish used as a pore filler and to give a polish better adhesion. Normally consists of polymers and resin.
Floor polish:	Contains film-forming components (dispersed wax, polymers, resin) which are applied to protect a floor and to make maintenance easier.
Ingredients:	The chemical substances or mixtures of chemical substances which, during production, are mixed together to make the floor care product. In cases where a couple of the ingredients react chemically with one another in connection with the production of the floor care product, the reaction products subsequently present in the floor care product are regarded as ingredients. The ingredients may be grouped according to their function (e.g. surfactants, preservatives and perfume).
Manufacturer:	The enterprise that finishes the product, i.e. mixes the formulation and packs it.
Perfume and colour:	Organic substances added first and foremost for aesthetic reasons to provide fragrance and colour. Perfume may, however, hide the odour of other ingredients.
Polish removers and wax removers	Are used to remove polish and wax from floors. Polish- and wax removers consist, among other things, of organic solvents, alkali, surfactants, hydrotropes and complexing agents.
Preservatives:	Organic substances added to prevent the growth of micro-organisms in the floor care product that would reduce the quality and stability of the product.
Product:	The floor care product itself in the form in which it is sold. Thus not in diluted form.
Professional product:	A product exclusively marketed for use in a professional context. The product is not classed as professional if exclusively marketed to the retail trade, or if marketed both to the retail trade and for professional use.
Surfactants:	Also called detergents and form a group of organic substances that consist of a hydrophobic (water-repellent) and a hydrophilic (water-soluble) part. This structure means that surfactants have a surface-active effect.
Wash polish/ wash and wax care products:	Comprise combined cleaning and polish improvers. They contain film-forming components such as polymers, resin and/or wax. In the case of maintenance products, wax-and-wash care products are included.

Appendix 2 Analyses and test methods

Requirements concerning the analysis laboratory

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

The applicant's analysis laboratory/test procedure may be approved for analysis and testing if:

- sampling and analysis is monitored by the authorities, or
- the manufacturer's quality assurance system covers analyses and sampling and is certified to ISO 9001 or ISO 9002, or
- the manufacturer can demonstrate agreement with a first-time test conducted at the manufacturer's own laboratory and testing carried out in parallel at an independent test institute, and the manufacturer takes samples in accordance with a fixed sampling schedule.

Test methods and calculations

Classification

Methods for testing and classification of substances are set out in EU Substances Directive 67/548/EEC with subsequent amendments and revisions. The most common test methods for environmentally hazardous properties are the same as are used to document environmental requirements in this criteria document and are referred to elsewhere in this Appendix (ready degradability, aquatic toxicity and bioaccumulability).

The rules for product classification are contained in Preparations Directive 99/45/EC with subsequent amendments and revisions. The Directives are aimed at the Member States in the EU and also the countries covered by the EEA Agreement and with a few exceptions are therefore implemented in the legislation of all the Nordic countries.

Departures from the EU Directives in Nordic national legislation are referred to here as special rules. These may cover both special national classification rules and national exemptions on the list of hazardous substances. The application secretariat may provide information on which special rules apply.

Aerobically ready biodegradability

For ready biodegradability, test methods no. 301 (A - F) and no. 310 in the OECD guideline for testing of chemicals or other equivalent test methods are applied.

Aerobically potential biodegradability

For potential (ultimate) biodegradability, test method no. 302 (A - C) in the OECD guideline for testing of chemicals or other equivalent test methods are applied.

Anaerobic biodegradability

For anaerobic degradability, ISO 11734, ECOTOC no. 28 (June 1988), test method no. 311 in the OECD guideline for testing of chemicals or equivalent test methods are applied. The requirement is a minimum of 60% biodegradability under anaerobic conditions in 56 days (ECETOC no. 28, June 1988), 60 days (ISO 11734) and 60 days (OECD 311), respectively.

For substances not included in the DID list and where documentation is not available regarding anaerobic degradability according to the above, the following consideration can be applied:

Substances that are not toxic for aquatic organisms ($IC_{50}/EC_{50}/LC_{50} > 10$ mg/l), *and* which are aerobically ready biodegradable *and* at the same time have either

- low adsorption ($A < 25\%$)
- or
- high desorption ($D > 75\%$) according to OECD guideline no. 106
- or
- are not bioaccumulable according to the section on bioaccumulability.

Acute aquatic toxicity

For acute aquatic toxicity, test methods no. 201 (algae), no. 202 (daphnia) and no. 203 (fish) in the OECD guideline for testing of chemicals or other equivalent test methods are applied.

For surfactants/surface active agents, toxicity data for at least two groups of organisms (fish, daphnia, algae) are required. For other substances, toxicity data for one species only is acceptable.

Chronic aquatic toxicity

For chronic aquatic toxicity, test methods no. 201 (algae), no. 211 (daphnia) and no. 211 or no. 215 (fish) in the OECD guideline for testing of chemicals or other equivalent test methods are applied.

Please note that specification of a NOEC or LOEC value is not in itself a chronic test. A chronic test requires the test period to extend over a “long period of time”. The test method for acute aquatic toxicity for algae extends over 72 hours which corresponds to several algae generations, and it is therefore also used as a chronic test. For daphnia, the chronic test extends over 21 days and for fish the test period extends over 14 days to 60 days, depending on the method and the species of fish.

Bioaccumulability

The bioaccumulability of a substance can be tested on fish according to OECD guidelines 305 A-E. If the biological concentration factor (BCF) of the substance is ≥ 500 , the substance is deemed accumulable, and if $BCF < 500$ the substance is deemed non-accumulable. Unless otherwise established, substances are deemed bioaccumulable if $\log K_{ow} \geq 4$ according to OECD guidelines 107 or 117 or equivalent methods.

Please note that if a measured BCF value is available, the highest value measured *must* be applied instead of $\log K_{ow}$. This means that a substance with a $\log K_{ow}$ value ≥ 4 is not considered bioaccumulable if the highest measured BCF value is < 500 . OECD guideline 107 is not applicable for surfactants with both fat and water soluble properties as this is a test that measures whether the substance is fat or water soluble (results in a $\log K_{ow}$ value). For these substances it has to be demonstrated with a high degree of certainty based on the present knowledge that they and their degradation products do not have long-term harmful effects on organisms in the aquatic environment.

A substance is deemed bioaccumulable if the octanol-water distribution coefficient ($\log K_{ow}$) of the substance is ≥ 3.0 in the octanol-water methods. In the bioconcentration methods, a substance is regarded as bioaccumulable if the concentration factor (BCF) of the substance is ≥ 100 .

The DID list (Detergent Ingredients Database)

Ecotoxicological data exist for most ingredients in Part A of the DID list (Detergent Ingredients Database, drawn up in collaboration between EU Ecolabelling and Nordic Ecolabelling). The list can be obtained from Nordic Ecolabelling's home pages (see page 2 of this criteria document for addresses).

Part B contains instructions on how to approach ingredients not on the list. The DID list version of 30 June 2004 or later versions apply to these criteria. The list contains information on toxicity (acute and chronic), degradability (including aerobic and anaerobic) and safety factors, etc.

Ecotoxicological data for use in the DID list, Part B, may be taken from the product safety data sheets for the ingredients, on condition that the data are credible and the test method is in accordance with the methods specified in Appendix 2 to this criteria document. In the same way reference may also be made to analogous considerations, provided that they are conducted by a competent third party, and reference may be made to relevant data from the literature that have been scientifically assessed.

Challenge Test

Performance of the Challenge Test (detection of surviving bacteria in various concentrations of the preservative, to determine the optimum concentration in the product) must be documented with a test report from the development work or equivalent.

“Alternative methods/similar methods”

In the case of the use of test methods other than as indicated in this Appendix 2 and under each requirement: the test method must be confirmed as relevant by an independent third party. In addition, there must be an assessment of similarities/dissimilarities and how the result will depart from a result for the use of the test indicated in the requirement or in Appendix 2. Nordic Ecolabelling must approve the use of the alternative test on the basis of these assessments.

Calculation of CDV

The critical dilution volume (CDV) is expressed in litres and is calculated for each individual ingredient (except for water and high-molecular substances) in accordance with the following formula:

$CDV_i = (\text{Quantity in mg of the ingredient per litre of usage solution}) \times DF_i/TF_i$ where:

CDV_i = critical dilution volume for an ingredient (i)

DF_i = degradation factor for an ingredient (i)

TF_i = toxicity factor for an ingredient (i)

The total critical dilution volume of the product is the sum of the CDV_i for all ingredients. The critical dilution volume must be calculated with acute toxicity factors. A calculation example is given below. In the example, CDV is calculated with chronic data of 6,742 litres and this means that the CDV requirement of 14,000 litres is met.

CDV is a measure of the amount by which a product needs to be diluted in order to be rendered harmless to waterborn organisms. It is the relationship between the recommended dosage of the product and the toxicity and degradability of the product.

CDV is calculated on the basis of information on ingredients found in the DID list (Detergent Ingredients Database) dated 30 June 2004 or later versions. Information not found on the list is determined in accordance with Part B of the DID list.

Ecotoxicological data for use in the DID list, Part B, may be taken from the product safety data sheets for the ingredients, on condition that the data are credible and the test method is in accordance with the methods specified in Appendix 2 to this criteria document. In the same way reference may also be made to analogous considerations, provided that they are conducted by a competent third party, and reference may be made to relevant data from the literature that have been scientifically assessed.

In the absence of data, the following *worst case* data for the DID list can be used:

LC50/EC50 = 1

SF = 10.000

DF = 1

aNBO = P

anNBO = N

Where no data for chronic toxicity exist, TF chronic is taken as equal to TF acute.

Example:

The following example is purely intended to make it possible to check understanding of the calculations of the criteria.

A formulation for a constructed product is shown below. The DID no. denotes the number in the Detergent Ingredients Database. The result of the calculations is rounded off.

Please note that data for Name 1 ("New surfactant") in the example is taken directly from the safety data sheet of the ingredient. Only ecotoxicity data for the entire ingredient including water are set out on the data sheet.

In the case of New surfactant, the data sheet sets out acute data for 3 trophic levels (fish, algae and daphnids) and the lowest value is 17 mg/l. This means that the safety factor is 1,000 and that the lowest toxicity must therefore be divided by 1000 to obtain the toxicity factor (= TF acute = TF chronic in the absence of chronic data).

New surfactant is, according to the data sheet, readily degradable and therefore the value of the DF (the degradability factor) is equal to 0.05.

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Trade names (active content)	Chemical names	Quantity (mg per litre of usage solution)	DID no.	TF chronic	DF	CDV
Name 1 (27%)	"New surfactant"	250	(*)	0,17	0.05	735.3
Name 2 (30%)	Cocamidpropyl Betain	108	61	0,0009	0.05	6000
Name 3 (100%)	Glycerine	25	112	0,88	0.05	1.4
Name 4 (60 %)	Phenoxyethanol	0,08	99	2	0.05	0,002
Name 5 (100 %)	Sodium Chloride	0,5	134	1	1	0,5
Total						6737.2

(*) The ingredient is not on the DID list and the applicant refers to ecotoxicity data on the data sheet

In the example, CDV is calculated with chronic data of 6,737 litres and this means that the CDV requirement of 14,000 litres is met.

Appendix 3 Duly completed and signed declaration by the manufacturer of the floor care product

The requirements apply to all floor care products except where it is specifically stated that they apply only to named floor care products. The requirements apply to all constituent substances, save as otherwise specified in the individual requirement. Constituent substances are all substances in the product including additives in ingredients (e.g. preservatives and stabilisers) and known emission substances (e.g. formaldehyde), but not pollutants originating in raw material production, save as otherwise specified in the individual requirement. Pollutants are traces from raw material production present in the product in concentrations of less than 0.01 w/w% (equivalent to 100 ppm), but not substances that have been added to a raw material intentionally and for a purpose.

Please note that in some requirements pollutants are included if they are present in the raw material in quantities in excess of 0.01 w/w %.

The manufacturer's stamp and signature confirms that the declaration was completed by the manufacturer:

Name of manufacturer
Stamp and signature
Trade name of product
Classification and labelling of product

- Floor care product with cleaning effect (wash polish/wash care product)
- Floor care product without cleaning effect (floor polish/base coat polish, floor wax)
- Polish remover/wax remover
- Consumer product
- Professional product

	Yes	No
Does the product contain substituent substances that are or may release substances that are classified as carcinogenic (Carc), mutagenic (Mut) or toxic for reproduction (Rep)? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain volatile organic substances, including halogenating and aromatic solvents? Volatile organic substances including halogenated and/or aromatic solvents mean substances that are defined in 1999/13/EC as VOC, in other words substances that at 20°C have a vapour pressure >0.010 kPa. If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain preservatives? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain surfactants? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		

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<p>Does the product contain substances classified as environmentally hazardous?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain softeners?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain substances that may form environmentally harmful degradation products?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain complexing agents?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain residual monomers from polymers?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain ingredient emulsifiers or levelling agents?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain fluorosurfactants or silicone surfactants?</p> <p>If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain:</p> <p>Perfume?</p> <p>Phthalates?</p> <p>Dyestuffs or pigments?</p> <p>APEO (alkylphenol ethoxylates) or derivatives thereof or LAS (linear alkylbenzene sulphonates)?</p> <p>Nanomaterials/particles (intentionally produced microscopic particles with dimensions of less than 100 nanometres), for example ZnO, TiO₂, SiO₂ or Ag?</p>		

Appendix 4 Duly completed and signed declaration by raw material producer

The requirements apply to all constituent substances, save as otherwise specified in the individual requirement. Constituent substances are all substances in the product including additives in ingredients (e.g. preservatives and stabilisers) and known emission substances (e.g. formaldehyde), but not pollutants originating in raw material production, save as otherwise specified in the individual requirement. Pollutants are traces from raw material production present in the product in concentrations of less than 0.01 w/w% (equivalent to 100 ppm), but not substances that have been added to a raw material intentionally and for a purpose.

Please note that in some requirements pollutants are included if they are present in the raw material in quantities in excess of 0.01 w/w %.

The manufacturer's stamp and signature confirms that the declaration was completed by the manufacturer:

Name of manufacturer
Stamp and signature
Trade name of product
Classification and labelling of product

	Yes	No
Does the product contain substituent substances that are or may release substances that are classified as carcinogenic (Carc), mutagenic (Mut) or toxic for reproduction (Rep)? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain volatile organic substances, including halogenating and aromatic solvents? Volatile organic substances including halogenated and/or aromatic solvents mean substances that are defined in 1999/13/EC as VOC, in other words substances that at 20°C have a vapour pressure >0.010 kPa. If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain preservatives? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain surfactants? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain substances classified as environmentally hazardous? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		
Does the product contain softeners? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:		

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<p>Does the product contain substances that may form environmentally harmful degradation products? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain complexing agents? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain residual monomers from polymers? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain ingredient emulsifiers or levelling agents? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain fluorosurfactants or silicone surfactants? If yes, state chemical name, CAS number and quantity in ppm, w/w% or mg/kg:</p>		
<p>Does the product contain: Perfume? Phthalates? Dyestuffs or pigments? APEO (alkylphenol-ethoxylates) or derivatives thereof or LAS (linear alkylbenzen sulphonates)? Nanomaterials/particles (intentionally produced microscopic particles with dimensions of less than 100 nanometres), for example ZnO, TiO₂, SiO₂ or Ag?</p>		

Appendix 5 Classification of the product

Classification in accordance with the Dangerous Substances Directive 67/548/EEC will apply during the period of transition to regulation No. 1272/2008 between December 2010 and June 2015

Classification in accordance with Regulation No. 1272/2008 will apply from December 2010.

The product must not be classified as:

Classification	Classification in accordance with Directive 67/548/EEC	Classification in accordance with the CLP regulation 1272/2008/EC and GHS	
		Hazard class and category	Hazard phrase
Dangerous for the environment			
	N; R50	Aquatic Acute 1	H400
	N; R50-53	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
	N; R51-53	Aquatic Chronic 2	H411
	R52-53	Aquatic Chronic 3	H412
	R53	Aquatic Chronic 4	H413
Very toxic			
	T+; R26	Acute Tox. 2	H330
	T+; R26	Acute Tox. 1	H330
	T+; R27	Acute Tox. 1	H310
	T+; R28	Acute Tox. 2	H300
	T+; R39/26	STOT SE 1	H370
	T+; R39/27	STOT SE 1	H370
	T+; R39/28	STOT SE 1	H370
Toxic			
	T; R23	Acute Tox. 2	H330
	T; R23	Acute Tox. 3	H331

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	T; R24	Acute Tox. 3	H331
	T; R25	Acute Tox. 3	H301
	T; R39/23	STOT SE 1	H370
	T; R39/24	STOT SE 1	H370
	T; R39/25	STOT SE 1	H370
	T; R48/23	STOT RE 1	H372
	T; R48/24	STOT RE 1	H372
	T; R48/25	STOT RE 1	H372
Harmful			
	Xn; R20	Acute Tox. 4	H332
	Xn; R21	Acute Tox. 4	H312
	Xn; R22	Acute Tox. 4	H302
	Xn; R48/20	STOT RE 2	H373
	Xn; R48/21	STOT RE 2	H373
	Xn; R48/22	STOT RE 2	H373
	Xn; R65	Asp. Toax. 1	H304
	Xn; R68/20	STOT SE 2	H371
	Xn; R68/21	STOT SE 2	H371
	Xn; R68/22	STOT SE 2	H371
Irritant			
	R42	Resp. Sens. 1	H334
	R43	Skin Sens. 1	H317
Corrosive			
	C; R34	Skin Corr. 1B	H314
	C; R35	Skin Corr. 1A	H314
Carcinogenic			
	Carc. Cat. 1; R45	Carc. 1A	H350

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	Carc. Cat. 2; R45	Carc. 1B	H350
	Carc. Cat. 1; R49	Carc. 1A	H350i
	Carc. Cat. 2; R49	Carc. 1B	H350
	Carc. Cat. 3; R40	Carc. 2	H351
Mutagenic			
	Mut. Cat. 2; R46	Muta. 1B	H340
	Mut. Cat. 3; R68	Muta. 2	H341
Toxic for reproduction			
	Rep. Cat. 1; R60	Repr. 1A	H360F
	Rep. Cat. 2; R60	Repr. 1B	H360F
	Rep. Cat. 1; R61	Repr. 1A	H360D
	Rep. Cat. 2, R61	Repr. 1B	H360D
	Rep. Cat. 3; R62	Repr. 2	H361f
	Rep. Cat. 3; R63	Repr. 2	H361d
	Rep. Cat. 1; R60-61	Repr. 1A	H360FD
	Rep. Cat. 1; R60 Rep. Cat. 2; R61	Repr. 1A	H360FD
	Rep. Cat. 2; R60 Rep. Cat. 1; R61	Repr. 1A	H360FD

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	Rep. Cat. 2; R60-61	Repr. 1B	H360FD
	Rep. Cat. 3; R62-63	Repr. 2	H361 fd
	Rep. Cat. 1; R60 Rep. Cat. 3; R63	Repr. 1A	H360Fd
	Rep. Cat. 2; R60 Rep. Cat. 3; R63	Repr. 1B	H360 Fd
	Rep. Cat. 1; R61 Rep. Cat. 3; R62	Repr. 1A	H360Df
	Rep. Cat. 2; R61 Rep. Cat. 3; R62	Repr. 1B	H360Df
	R64	Lact.	H362
	R33	STOT RE 2	H373
Explosive			
	E; R2	Direkte oversættelse ikke mulig	
	E; R3	Direkte oversættelse ikke mulig	
Oxidising	O; R7	Org. Perox. CD Org. Perox. EF	H242 H242
	O; R8	Direkte oversættelse ikke mulig	
	O; R9	Ox. Liq. 1	H271
Extremely flammable			

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	F+; R12	Flam. Liq. 1	H224
	F+; R12	Self-react. CD	H242
	F+; R12	Self-react. EF	H242
	F+; R12	Self-react. G	Ingen
Highly flammable			
	F; R11	<i>Flam. Liq. 1, H224, if initial boiling point $\leq 35\text{ }^{\circ}\text{C}$ Flam. Liq. 2, H225, if boiling point $>35\text{ }^{\circ}\text{C}$</i>	
Flammable			
	R10	<i>Flam. Liq. 1, H224, if flashpoint $< 23\text{ }^{\circ}\text{C}$ and initial boiling point $\leq 35\text{ }^{\circ}\text{C}$ Flam. Liq. 2, H225, if flashpoint $< 23\text{ }^{\circ}\text{C}$ and initial boiling point $> 35\text{ }^{\circ}\text{C}$ Flam. Liq. 3, H226, if flashpoint $\geq 23\text{ }^{\circ}\text{C}$</i>	

Appendix 6 Translation of CMR classification, danger to the environment classification, classification of residual monomers

Classification in accordance with the Dangerous Substances Directive 67/548/EEC will apply during the period of transition to regulation No. 1272/2008 between December 2010 and June 2015

Classification in accordance with Regulation No. 1272/2008 will apply from December 2010.

CMR classification concerning R3

Classification	Classification in accordance with Directive 67/548/EEC	Classification in accordance with CLP regulation 1272/2008/EC and GHS	
		Hazard class and category	Risk phrase
Carcinogenic			
	Carc. Cat. 1; R45	Carc. 1A	H350
	Carc. Cat. 2; R45	Carc. 1B	H350
	Carc. Cat. 1; R49	Carc. 1A	H350i
	Carc. Cat. 2; R49	Carc. 1B	H350
	Carc. Cat. 3; R40	Carc. 2	H351
Mutagenic			
	Mut. Cat. 2; R46	Muta. 1B	H340
	Mut. Cat. 3; R68	Muta. 2	H341
Toxic for reproduction			
	Rep. Cat. 1; R60	Repr. 1A	H360F
	Rep. Cat. 2; R60	Repr. 1B	H360F
	Rep. Cat. 1; R61	Repr. 1A	H360D
	Rep. Cat. 2; R61	Repr. 1B	H360D
	Rep. Cat. 3; R62	Repr. 2	H361f
	Rep. Cat. 3; R63	Repr. 2	H361d

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	Rep. Cat. 1; R60-61	Repr. 1A	H360FD
	Rep. Cat. 1; R60 Rep. Cat. 2; R61	Repr. 1A	H360FD
	Rep. Cat. 2; R60 Rep. Cat. 1; R61	Repr. 1A	H360FD
	Rep. Cat. 2; R60-61	Repr. 1B	H360FD
	Rep. Cat. 3; R62-63	Repr. 2	H361 fd
	Rep. Cat. 1; R60 Rep. Cat. 3; R63	Repr. 1A	H360Fd
	Rep. Cat. 2; R60 Rep. Cat. 3; R63	Repr. 1B	H360 Fd
	Rep. Cat. 1; R61 Rep. Cat. 3; R62	Repr. 1A	H360Df
	Rep. Cat. 2; R61 Rep. Cat. 3; R62	Repr. 1B	H360Df
	R64	Lact.	H362
	R33	STOT RE 2	H373

Environmental hazard classification concerning

Classification	Classification in accordance with Directive 67/548/EEC	Classification in accordance with CLP regulation 1272/2008/EC and GHS	
		Hazard class and category	Risk phrase
Dangerous for the environment			
	R52-53	Aquatic Chronic 3	H412
	R53	Aquatic Chronic 4	H413

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Classification of residual monomers

Classification	Classification in accordance with Directive 67/548/EEC	Classification in accordance with CLP regulation 1272/2008/EC and GHS	
		Hazard class and category	Risk phrase
Dangerous for the environment			
	N; R50	Aquatic Acute 1	H400
	N; R50-53	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
	N; R51-53	Aquatic Chronic 2	H411
	R52-53	Aquatic Chronic 3	H412
	R53	Aquatic Chronic 4	H413
Very toxic			
	T+; R26	Acute Tox. 2	H330
	T+; R26	Acute Tox. 1	H330
	T+; R27	Acute Tox. 1	H310
	T+; R28	Acute Tox. 2	H300
	T+; R39/26	STOT SE 1	H370
	T+; R39/27	STOT SE 1	H370
	T+; R39/28	STOT SE 1	H370
Toxic			
	T; R23	Acute Tox. 2	H330
	T; R23	Acute Tox. 3	H331
	T; R24	Acute Tox. 3	H331
	T; R25	Acute Tox. 3	H301
	T; R39/23	STOT SE 1	H370

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	T; R39/24	STOT SE 1	H370
	T; R39/25	STOT SE 1	H370
	T; R48/23	STOT RE 1	H372
	T; R48/24	STOT RE 1	H372
	T; R48/25	STOT RE 1	H372
Harmful			
	Xn; R20	Acute Tox. 4	H332
	Xn; R21	Acute Tox. 4	H312
	Xn; R22	Acute Tox. 4	H302
	Xn; R48/20	STOT RE 2	H373
	Xn; R48/21	STOT RE 2	H373
	Xn; R48/22	STOT RE 2	H373
	Xn; R65	Asp. Toax. 1	H304
	Xn; R68/20	STOT SE 2	H371
	Xn; R68/21	STOT SE 2	H371
	Xn; R68/22	STOT SE 2	H371
Irritant			
	R42	Resp. Sens. 1	H334
	R43	Skin Sens. 1	H317
Carcinogenic			
	Carc. Cat. 1; R45	Carc. 1A	H350
	Carc. Cat. 2; R45	Carc. 1B	H350
	Carc. Cat. 1; R49	Carc. 1A	H350i
	Carc. Cat. 2; R49	Carc. 1B	H350
	Carc. Cat. 3; R40	Carc. 2	H351
Mutagenic			
	Mut. Cat. 2; R46	Muta. 1B	H340
	Mut. Cat. 3; R68	Muta. 2	H341

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Toxic for reproduction			
	Rep. Cat. 1; R60	Repr. 1A	H360F
	Rep. Cat. 2; R60	Repr. 1B	H360F
	Rep. Cat. 1; R61	Repr. 1A	H360D
	Rep. Cat. 2; R61	Repr. 1B	H360D
	Rep. Cat. 3; R62	Repr. 2	H361f
	Rep. Cat. 3; R63	Repr. 2	H361d
	Rep. Cat. 1; R60-61	Repr. 1A	H360FD
	Rep. Cat. 1; R60 Rep. Cat. 2; R61	Repr. 1A	H360FD
	Rep. Cat. 2; R60 Rep. Cat. 1; R61	Repr. 1A	H360FD
	Rep. Cat. 2; R60-61	Repr. 1B	H360FD
	Rep. Cat. 3; R62-63	Repr. 2	H361 fd
	Rep. Cat. 1; R60 Rep. Cat. 3; R63	Repr. 1A	H360Fd
	Rep. Cat. 2; R60 Rep. Cat. 3; R63	Repr. 1B	H360 Fd
	Rep. Cat. 1; R61 Rep. Cat. 3; R62	Repr. 1A	H360Df
	Rep. Cat. 2; R61 Rep. Cat. 3; R62	Repr. 1B	H360Df
	R64	Lact.	H362
	R33	STOT RE 2	H373

Appendix 7 Calculation of air requirement for compliance with administrative standards

The room height is set at 2.5 m and the calculation is performed on the basis of the minimum number of square meters per litre of the recommended dosage.
For the purpose of the calculation, the steam pressure (p) of the solvent in mmHg at 20° C can be used to derive the evaporation factor.
Where more solvents are present in the product, the air requirement for these solvents are added up.

Calculation example:

Does the XYZ compound fulfil the requirement for solvents?

Administrative standard for the solvent XYZ: 300 mg/m³
(the lowest Nordic standard value is used)

Steam pressure:	0.35 mm Hg at 20° C
Evaporation factor:	0.3 (see Table 1)
Quantity of solvent (XYZ) in product:	3.9 %
Product density :	1.0299 kg/l
Recommended dosage:	1 litre/40-90 m ²

Grams of XYZ/litre of product =
(% XYZ in product)/100 % * product density (kg/l) * 1000 g/kg = 0.039 * 1.0299 kg/l * 1000g/kg = 40.17 g/l

Corrected air requirement (m³/l) =
((grams of XYZ/litre of product) * 1000 mg/g) * evaporation factor / administrative standard
(mg/m³) = ((40.17 g/l * 1000 mg/g) * 0.3) / 300 mg/m³ = 40.17 m³/l

At an assumed maximum exposure (1 litre of product covers a floor of 40 m² only, and the height of the room is 2.5 m), the air requirement will be fulfilled because:

The air availability (m³) = Smallest area stated in the dosage instruction (m²) * 2.5 m (standard room height) = 40 m²/l * 2.5 m = 100 m³/l > 40.17 m³/l (air requirement)

Conclusion: XYZ can be used.

Table 1: Relationship between the steam pressure of a solvent expressed in mmHg at 20° C and the evaporation factor

Steam pressure (p) given in mmHg at 20 °C	Evaporation factor
$P > 200$	2,0
$200 \geq p > 10$	1,4
$10 \geq p > 3$	1,0
$3 \geq p > 1$	0,7
$1 \geq p > 0,1$	0,3
$0,1 \geq p$	0,0

Reference: The administrative standards are available from the following internet addresses:

Denmark: <http://www.at.dk/sw6796.asp>,

Sweden: www.av.se/regler/afs/2000_4.pdf

Norway: <http://www.arbeidstilsynet.no/regelverk/veiledninger/veil361.html>

Finland: www.stm.fi/Resource.phx/publishing/store/2005/04/hm1113392554181/passthru.pdf

Appendix 8 Effectiveness testing of professional products

This Appendix comprises five parts:

Part 1: Floor polish

Part 2: Wash polish and wash care products with wax

Part 3: Base coat polish

Part 4: Polish remover and wax remover

Part 5: User testing for professional products. See other requirements as to effectiveness in requirement R28

Part 1 – Standardised testing of professional floor polish

The following parameters must be documented:

Water resistance

Test method: ASTM D 1793-96 or other applicable version. Standard Test Method for Water Spotting of Emulsion Floor Polishes.

The result must be assessed in accordance with the following categories:

“Very high”: No change relative to the point of departure

“High”: Barely visible change

“Medium”: Greying disappears during the course of two hours

Requirement level: “Medium”

Detergent resistance

Test method: ASTM D 3207-96 or other current version. Standard Test Method for Detergent Resistance of Floor Polish Films.

The following formulation for standard detergent must be used instead of the formulation specified in the test method:

Sodium citrate	5%
Berol 91-8 (fatty alcohol, ethoxylated)	8%
Berol 522 (alkyl phosphate ester)	3%
Sodium carbonate	0.5%
* Demineralised water	up to 100%

Dosage: 1:200 (corresponding to 5 grams/litre) and the pH insolution between 6 and 8.

Detergent resistance is assessed qualitatively in accordance with the following categories:

“Very good”: No weakening/deterioration of the polish

“Good”: < 10% after 200 cycles

Requirement level: “Good”

Recoatability

Test method: ASTM D 3153-91 or other current version. Standard Test Method for Recoatability of Water-Emulsion Floor Polishes.

Assessment in accordance with the following categories:

“Very good”: Multicoat finish is significantly better than one coat alone.

Requirement level: “Very good”

Friction

Test method: ASTM D 2047-04 or other current version. Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.

Requirement level: Friction of 0.5 or more

Gloss

Test method: ASTM D 523-99 or other current version. Standard Test Method for Specular Gloss. Alternatively, the following test methods may be used. ISO 2813, DIN 67530 or ASTM D 1455.

Requirement level: The gloss of the polish must be specified on the product.

Removal

Test method: ASTM D 1792-97 or other current version. Standard Test Method for Long-Term Removability Properties of Emulsion Floor Polishes.

Test substrate: Vinyl Asbestos Tile (as described in the test). Alternatively, Vinyl Quarts may be used.

Requirement level: The dry film must be completely removed after 75 cycles.

Field testing

Test method: ASTM D 3052-91 or other current version. Standard Practice for Rating Water-Emulsion Floor Polishes.

The test is used to determine gloss, levelling, recoatability, discolouration, powdering, crazing, wear, heel marking, resistance to soiling, stripes, detergent resistance, slip resistance and removal in comparison with a reference material.

The test is a field test and describes how a test surface is to be laid out and treated in testing various types of polish.

The method is extended by means of the addition of the following points:

- The field test must be performed on the floor materials for which the polish is intended/recommended.
- The field test must be performed using a variety of maintenance methods, all of which must be documented.
- The field test must be performed using a variety of traffic levels relevant to the area of use.
- The producer must state the reference product used. The reference product must have been available on the market for at least one year and must have been shown to have been of satisfactory quality.
- When cleaning, the cleaning detergent normally used on the site must be used in place of the detergent specified in the test method. The producer must specify the product used.

The polish must be evaluated by a minimum of three independent observers with the relevant technical background within the area of film-forming floor care products.

The reference polish is given a value 0 and provides the basis for the assessment.

The following evaluative categories are used:

- 0 equal to the reference product
- +1 slightly better than the reference product
- +2 much better than the reference product
- 1 slightly worse than the reference product
- 2 much worse than the reference product

The results must be reported as an average by the observers. Assessment must be given to one decimal point (e.g. 1.2).

Requirement level: The polish must be as good as or better than the reference product.

Part 2 – Testing of wash polish and wash and wax care products for professional use

The cleaning and care properties are measured either visually or optically. Testing must show that the test product is better than or as good as a second equivalent product. The comparative product must be well established on the market in the country or countries in which the product will be marketed.

Requirement: An account must be provided of the test method used, test performers, test conditions (e.g. type of floor, type of soiling, cleaning method, etc.), results and the reason for the choice of comparative products.

Part 3 Standardised testing of base coat polish for professional use

If a base coat polish is to qualify for an ecolabel, the effectiveness of the base coat polish must be documented in combination with a second polish that is laid on top. The method is specified in Appendix 6, Part 1.

The properties that are to be tested on base coat polish alone are as follows:

Recoatability

Test method: ASTM D 3153-91 or some other current version. Standard Test Method for Recoatability of Water-Emulsion Floor Polishes.

Assessment must be performed in accordance with the following categories:

“Very good”: Multicoat finish is significantly better than a single coat

Requirement level: “Very good”

Part 4 Test of polish remover and wax remover for professional use

Removal

Test method: ASTM D 1792-82 or some other current version. Standard Test Method for Long-Term Removability Properties of Emulsion Floor Polishes.

Test substrate: Vinyl Asbestos Tile (as described in the test). Alternatively, Vinyl Quarts may be used.

Requirement level: The dried film must be completely removed after 75 cycles.

Part 5 – User test for professional products

The effectiveness of the product may be documented by means of user test forms (see Tables 6-1 - 6-4). This alternative is applicable to polish, maintenance products, polish removers and wax removers.

In the case of base coat polishes, the user test form for base coat polish must be completed in addition to one of the other user test forms (depending on the type of product that the base coat polish is combined with).

The following requirements apply:

- The product must be used by at least 5 users for 3 months. In case of polish removers/wax removers at least 5 users and at least 2 different test materials are required. In the case of specialist wax remover products, e.g. wax remover products for linoleum, at least 5 users are required (references must be stated).
- The product must be used with satisfactory results on the types of substrate for which the polish/maintenance product is intended.
- The traffic condition under which the products are to be tested must correspond to normal traffic in corridors in large office buildings.
- Polish removers/wax removers must be tested on 2-3 coats of polish, with relevance for the polish remover/wax remover, and the polish must have in place on the floor for at least one year.

In the user test, the user allocates points for various properties, with 5 being the highest score and 1 the lowest score.

The types of floors that must be tested:

The test must include of the floor types for which the product is marketed. This means at least one user per floor type.

Requirements applicable to the individual parameter:

The score of 1 must not be awarded by a user for any parameter.

Overall assessment of the product:

The score of 3 must be attained by at least 4 out of the 5 users (at least 80% of all users).

The score of 1 must not be awarded by any user.

For each product, the individual parameters must be assessed separately (test parameters). In the case of non-standard products, Nordic Ecolabelling may permit the user's report to add a further points assessment for other overall properties such as removal of floor care products, drying time, wear, etc.

Table 6-2 User testing of wash polish/wash and wax care products for professional use

Product type	Floor type	Test parameter	Points (1-5 p, where 5 is best)
Wash polish/wash and wax care product Name of the product:	Types of floor for which the product is intended (to be completed by the manufacturer):	Interpretation: How easy is the product to apply/distribution capacity? Does the product foam on application? Odour of the product? Keeping clean/maintenance with the product: Removal of traffic marks (black heel marking)? Durability of the gloss of the product (are polishing machines used)? Slip resistance (should be measured with friction device if the response must be objective)? Water resistance? Cleaning effect?	 _____p _____p _____p _____p _____p _____p _____p
Total assessment of the product, 1-5p, where 5 is best (other parameters such as removal and wear resistance can also be included here):			_____
Test period:			
Floor type/substrate:			
Comments on total assessment:			
The user's name:			

User test for base coat polish

If a base coat polish must be ecolabelled, the effectiveness of the base polish must be documented in combination with another polish applied on top.

Table 6-3 User test for base coat polish for professional use

Product type	Floor type	Test parameter	Points (1-5p, where 5 is best)
Base polish Name of the product:	Type of floor for which the product is intended (to be completed by the manufacturer):	Interpretation: How east is the base coat polish to apply?	_____p
		Does the base coat polish foam on application?	_____p
		Odour of the base coat polish	_____p
Total assesment of the product, 1-5p, where 5 is best (other parameters such as removal can also be included here):			_____p
Test period:			
Floor type/substrate:			
Comments on the til total assesment:			
The user's name:			

User test for polish removers/wax removers

**Table 6-4 User test for polish removers/
 wax removers for professional use**

Product type	Polish type	Test parameter	Points (1-5p, where 5 is best)
Polish remover or wax remover Name of the product:	For which polish types or wax types is the product intended (to be completed by the manufacturer):	Interpretation: How quickly does the polish/wax remover work after application? How easy is it to rinse off the residues and neutralise the pH of the floor? Absorption: How easy is it to rinse off the residues and neutralise the pH of the floor?	 _____p _____p _____p
Total assessment of the product, 1-5p, where 5 is best			_____p
Test period:			
The type of polish remover/wax remover and the type of polish/wax removed:			
Floor type:			
Comments on the total assessment:			
The user's name:			

Appendix 9 Effectiveness testing of consumer products

This Appendix consists of three parts:

Part 1 deals with floor polish and

Part 2 deals with wash polish and wash-and-wax care products.

Part 3 deals with polish removers and wax removers. See other requirements concerning effectiveness in requirement K28 of the document.

Products that are approved for professional use and which must also be marketed as consumer products must only undergo effectiveness testing for products for professional use (Appendix 6).

Part 1 – Standardised testing of floor polish for consumers

Laboratory test

The following parameters must be documented:

Water resistance:

Test method: ASTM D 1793-92. Standard Test Method for Water Spotting of Emulsion Floor Polishes.

The result must be assessed in accordance with the following categories:

“Very high” No change from the baseline
“High” Hardly any visible change
“Medium” The grey area disappears within 2 hours

Requirement level: “Medium”

Slip resistance

Test method: ASTM D 2047-82. Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.

Requirement level: Friction of 0.5 or more.

Removal

- Test method:** ASTM D 1792-82. Standard Test Method for Long-Term Removability Properties of Emulsion Floor Polishes.
- Test substrate:** Vinyl Asbestos Tile as indicated in the test description. Alternatively, Vinyl Quarts may be used.
- Requirement level:** The dried film must be adequately removed after 75 cycles.

Field test

A field test must be performed to document the effectiveness of the product. The field test must be performed by means of the application of the polish to a trafficked floor surface, after which the usage properties are assessed over time.

The test is used to determine gloss, levelling, recoatability, discolouration, powdering, cracking, wear, black heel marking, soil resistance, banding, cleaning resistance, slip resistance and removability, compared with a reference product.

The field test must be performed on the floor materials for which the polish is used/recommended.

The manufacturer must indicate which reference product is used. The reference product must have been on the market for at least one year and have exhibited satisfactory level of quality.

Evaluation of the polish must be carried out by at least 3 observers with a relevant technical background in film-forming floor care products. The reference polish is assigned the value 0 and forms the starting point in the evaluation. The following evaluation categories are used:

- 0 equal to the reference product
- +1 slightly better than the reference product
- +2 much better than the reference product
- 1 slightly worse than the reference product
- 2 much worse than the reference product

Results must be reported as an average by the observers.

The assessment may be given to one decimal place (e.g. 1.2)

Requirement level: The polish must be as good as or better than the reference product.

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Part 2 – Testing of wash polish/ wash care product for consumers

The cleaning and care properties are measured either visually or optically. It must be possible to demonstrate that the test product is better than or as good as another equivalent product. This comparison product must be well established on the market in the country or countries in which the product is to be marketed.

Requirement: The test method, test performed, test conditions (e.g. floor type, soil type, cleaning method, etc.), results and motivation for the choice of comparison product must be described.

Part 3 – Testing of polish removers and wax removers for professional use

Removal

- Test method: ASTM D 1792-82 or other valid version. Standard Test Method for Long-Term Removability Properties of Emulsion Floor Polishers.
- Test substrate: Vinyl Asbestos Tile as indicated in the test description. As an alternative, Vinyl Quarts may be used.
- Requirement level: The dried film must be adequately removed after 75 cycles.

Appendix 10 The marketing of Nordic Ecolabelled floor care products

We hereby confirm that we are aware of the rules governing the use of the Nordic Ecolabel as described in the “Regulations for Nordic ecolabelling” of 12 December 2001 or later versions and we undertake that the marketing of the Nordic Ecolabelled floor care product will comply with these regulations.

We also confirm that we are familiar with the criteria for the ecolabelling of floor care products.

We undertake to ensure that the persons marketing the ecolabelled floor care products within our company receive information on the criteria governing the ecolabelling of floor care products and “Regulations for Nordic Ecolabelling” dated 22 June 2011 or later versions.

Place and date

Name of company

Contact

Tel.

Person responsible for marketing

Tel.

A new confirmation must be submitted to Nordic Ecolabelling in the event of changes in personnel.