

Nordic Ecolabelling of

# Hand dishwashing detergents



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Nordic Ecolabelling

# Content

<b>What is a Nordic Ecolabelled hand dishwashing detergent?</b>	<b>3</b>
<b>Why choose the Nordic Ecolabel?</b>	<b>3</b>
<b>What can carry the Nordic Ecolabel?</b>	<b>4</b>
<b>How to apply</b>	<b>4</b>
<b>What are the requirements of the Nordic Ecolabel?</b>	<b>5</b>
<b>1 Environmental requirements</b>	<b>6</b>
1.1 Description of the product	6
1.2 Prohibited or limited constituent substances and mixtures	7
1.3 Dosage, ecotoxicity and biodegradability	10
1.4 Packaging	12
1.5 User information and instructions on sustainable use	13
<b>2 Performance</b>	<b>14</b>
<b>3 Quality and regulatory requirements</b>	<b>15</b>
<b>4 Marketing</b>	<b>16</b>
<b>Design of the Nordic Ecolabel</b>	<b>17</b>
<b>Follow-up inspections</b>	<b>17</b>
<b>How long is a licence valid?</b>	<b>17</b>
<b>New criteria</b>	<b>18</b>

Appendix 1 Marketing of Nordic-Ecolabelled hand dishwashing detergents

Appendix 2 Analyses, test methods and calculations

Appendix 3 Declaration from the producer of the hand dishwashing detergent

Appendix 4 Declaration from the manufacturer of the rawmaterial

Appendix 5 Performance test

Appendix 6 Fragrances on the "26 list" (requirement R5)

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

## Addresses

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

### Denmark

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## **What is a Nordic Ecolabelled hand dishwashing detergent?**

A Nordic Ecolabelled hand dishwashing detergent is developed with regard to the environment and the user's health while offering performance equivalent to other hand dishwashing detergents.

The Nordic Ecolabel on a hand dishwashing detergent guarantees that the product contains the lowest possible level of substances with short and long-term adverse effects on the aquatic environment. Packaging consumption is low and the product offers dosage instructions to prevent overdosing.

Common to Nordic Ecolabelled hand dishwashing detergents:

- Optimized packaging quantities.
- Low levels of classified environmentally hazardous and harmful substances.
- Long-lasting.

## **Why choose the Nordic Ecolabel?**

- The licensee may use the Swan trademark for marketing the hand dishwashing detergent. The Nordic Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Ecolabel is a cost-effective and simple way of communicating environmental concerns and commitment to customers and suppliers.
- Environmentally suitable products mean the licensee is well prepared 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. The Nordic Ecolabel 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 Nordic Ecolabel licence can also be seen as a mark of quality.
- Environmentally suitable products are today often a priority among professional and private consumers. With the Nordic Ecolabel on the bottle, customers can see immediately which product to choose.

## What can carry the Nordic Ecolabel?

Liquid hand dishwashing detergents for the retail market and for professional use can be Nordic Ecolabelled. The primary function of the product is as a detergent for hand dishwashing.

Products that are intended for disinfection or to prevent the growth of micro-organisms (e.g. bacteria) are not included in the product group.

Products are considered professional if more than 80% of sales are to the professional market.

## How to apply

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

Please note that the ecolabelling organisation can supply spreadsheets free of charge to make some of the calculations easier. Visit the websites of the ecolabelling secretariats provided on page 2.

### 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

📍 Requirement checked on site

📄 Enclose procedures for environmental and quality assurance

### Application

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

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

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

## **Sales in the Nordic region**

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

## **On-site inspection**

During the application process, Nordic Ecolabelling normally performs an on-site inspection to ensure adherence to the requirements. For the purposes of this 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 turnover related to the product carrying the Nordic Ecolabel.

## **Enquiries**

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

# **What are the requirements of the Nordic Ecolabel?**

To be awarded the Nordic Ecolabel:

- To be awarded a Nordic Ecolabel licence, all requirements must be fulfilled.
- For renewal, documentation in accordance with all requirements must be submitted in order to retain the licence.

# 1 Environmental requirements

The requirements in Section 1 apply to all constituent substances in the product unless specified otherwise. The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers), with the exception of impurities from primary production. Impurities are defined as residual products from primary production that can be found in the final product in concentrations below 0.010% (100 ppm). Substances that are actively added to an ingredient or product for a particular purpose are not considered to be impurities, irrespective of quantity. Impurities of over 1.0% concentration in the primary product are regarded as constituent substances. Substances/products known to be liberated by a constituent substance (e.g. formaldehyde and arylamine) are also themselves considered to be constituent substances.

The chemical requirements make reference to the detergents ingredient database list (DID list), which is described in more detail in Appendix 2. The DID list contains the most commonly used ingredients in laundry, dishwasher and cleaning detergents. Guidelines are provided for substances not included in the DID list (DID list part B) as how to calculate or extrapolate relevant data. The DID list can be found on the webpages of the Nordic Ecolabelling secretariats. The DID list adopted in January 2007, or later version, shall be used for calculating environmental requirements.

Information on requirements pertinent to analysis laboratories can be found in Appendix 2.

## 1.1 Description of the product

### R1 Information on formulation/recipe

Applicants must provide detailed information on the formulation of the hand dishwashing detergent and enclose a safety data sheet for each ingredient. Information on the formulation must include:

- Trade name
- Chemical name
- Proportion (dry and wet sample)
- CAS no. for each ingredient. If an ingredient comprises several substances, this must be stated.
- Function of each ingredient.
- DID number for substances included on the DID list.
- Health and environmental classification.

*The DID number is the number assigned to the ingredient on the DID list, which is used for the evaluation of chemical requirements. The DID-list is available from Nordic Ecolabelling. See page 2 for addresses.*

- Comprehensive recipe for the product as stipulated by the requirement.
- Safety data sheet for each ingredient in accordance with European legislation in force.

## 1.2 Prohibited or limited constituent substances and mixtures

### R2 Classification of the product

Products must not be classified according to the European Dangerous Substances Directive 67/548/EEC with amendments and/or CLP Regulation (EC) No 1272/2008 with amendments, as specified in Table 1. Classification according to the EU Dangerous Substance Directive or the CLP Regulation may be used during the transition period, i.e. until 1 June 2015. Following the transition period, classification according to the CLP Regulation is to apply exclusively (see Table 1).

**Table 1. Product classification**

Classification	Hazard symbol and risk phrase / Hazard class, category and statement	
	CLP Regulation 1272/2008	Dangerous Substances Directive 67/548/EEC
Dangerous for the environment	Hazardous to the aquatic environment Category Acute 1 H400; Category Chronic 1 H410; Category Chronic 2 H411; Category Chronic 3 H412; Category Chronic 4 H413	N with R50 R50/53 or R51/53. R52 R53 or R52/53 without N
Very toxic	Acute toxicity, Category 1 or 2 with H330, H310 and/or H300, and/or Specific target organ toxicity – single exposure, Category 1 with H370	Tx (T+ in Norway) with R26, R27, R28 and/or R39
Toxic	Acute toxicity, Category 2 or 3 with H330, H331, H311 and/or H301, and/or Specific target organ toxicity – single exposure, Category 1 with H370, and/or Specific target organ toxicity – repeated exposure, Category 1 with H372	T with R23, R24, R25, R39 and/or R48
Harmful	Aspiration hazard, Hazard Category 1 with H304 and/or Specific target organ toxicity – single exposure, Category 2 with H371, and/or Specific target organ toxicity – repeated exposure, Category 2 with H373 Acute toxicity, Category 4 with H332, H312 or H302	Xn with R20, R21, R22, R48, R65 and/or R68
Sensitizing	Respiratory sensitisation, Category 1 with H334 or Skin sensitisation Category 1 with H317	Xn with R42 or Xi with R43
Carcinogenic	Carc. 1A or 1B; H350 Carc. 1A or 1B; H350i Carc. 2; H351	Carc. cat. 1 or 2; R45 Carc. cat. 1 or 2; R49 Carc. cat. 3; R40
Mutagenic	Muta. 1B; H340 Muta. 2; H341	Muta. cat. 2; R46 Muta. cat. 3; R68
Reproductive toxic	Repr. 1A or 1B; H360F Repr. 1A or 1B; H360D Repr. 2; H361f Repr. 2; H361d Lact, H362	Repr. cat. 1 or 2; R60 Repr. cat. 1 or 2; R61 Repr. cat. 3; R62 Repr. cat. 3; R63 R64

*Classification according to EU Dangerous Substance Directive 67/548/EEC and EU Dangerous Preparation Directive 1999/45/EC with amendments.*

*Note that the producer is responsible for classification.*



Safety data sheet for the product in accordance with European legislation in force.

### R3 CMR substances

The product must not contain substances that are classified with any of the following hazard categories or risk phrase or combinations of these (see Table 2).

**Table 2 Classification of constituent substances**

<b>Hazard class</b>	<b>Hazard category and hazard statement (Regulation (EC) No 1272/2008<sup>1</sup>)</b>	<b>Equivalent hazard category and risk phrase (Directive 67/548/EEC<sup>2</sup>)</b>
Carcinogenic	Carc. 1A or 1B; H350 Carc. 1A or 1B; H350i Carc. 2; H351	Carc. cat. 1 or 2; R45 Carc. cat. 1 or 2; R49 Carc. cat. 3; R40
Mutagenic	Muta. 1B; H340 Muta. 2; H341	Muta. cat. 2; R46 Muta. cat. 3; R68
Reproductive toxic	Repr. 1A or 1B; H360F Repr. 1A or 1B; H360D Repr. 2; H361f Repr. 2; H361d Lact, H362	Repr. cat. 1 or 2; R60 Repr. cat. 1 or 2; R61 Repr. cat. 3; R62 Repr. cat. 3; R63 R64

<sup>1</sup> Applicable from Dec. 2010

<sup>2</sup> Applicable in transition period to Regulation (EC) no 1272/2008 from Dec. 2010 to June 2015.

The requirement also applies to substances that liberate/degrade to substances with the above classifications.

- Duly completed and signed declaration of conformity with product requirements (Appendix 3 or equivalent) and ingredient requirements (Appendix 4 or equivalent).

### R4 Allergenic substances

The product must not contain  $\geq 0.10\%$  by weight per substance of substances that are classified as H334/R42 and/or H317/R43 according to Regulation (EC) No 1272/2008 or Directive 67/548/EEC.

See also the separate requirement on fragrances, R5.

- Duly completed and signed declaration of conformity with product requirements (Appendix 3 or equivalent) and ingredient requirements (Appendix 4 or equivalent).

### R5 Fragrances

The requirement also covers fragrant plant extracts.

- The use of fragrances shall follow IFRA guidelines (International Fragrance Association).
- Fragrances subject to declaration in accordance with Regulation (EC) No 648/2004 on detergents with amendments may not be present in concentrations greater than 100 ppm ( $>0.010\%$ ) per substance. See Appendix 6. See also R4 regarding the content of allergens in the product.
- Fragrances that are classified as H317/R43 and/or H334/R42 must not be present at concentrations above 100 ppm ( $>0.010\%$ ) per substance. See also R4 regarding other allergens in the product.

- Duly completed and signed declaration from the manufacturer of the hand dishwashing detergent that demonstrates that fragrances are handled and/or manufactured according to IFRA guidelines, as stipulated by requirement R5a. Appendix 3 and 4 can be used.



- ☒ Duly completed and signed declaration from the fragrance manufacturer as to the content of relevant fragrances and any plant extracts Appendix 4 or similar documentation (e.g. analysis certificate for the 26 allergens and information on substances classified as R42/H334 and/or R43/H317) may be used.

## **R6 Fragrances in professional products**

Fragrances are not permitted in professional products.

*Professional products include products that are marketed for use in a professional context, such as institutional kitchens, catering kitchens, restaurants and public services.*

*If a product is sold on both professional and consumer markets, it is considered a professional product if more than 80% of sales are to the professional market. If there is doubt as to whether the product is for professional use or consumer use, Nordic Ecolabelling may request documentation supporting claims.*

- ☒ Recipe as per requirement 1 that demonstrates the absence of fragrances.

## **R7 Prohibited substances**

The product must not contain the following substances.

- APEO (alkylphenol ethoxylates) or its derivatives
- APD (Alkylphenol derivatives)
- EDTA (ethylene diamine tetraacetate) and its salts
- Quaternary ammonium salts that are not readily biodegradable.
- Methylidibromoglutaronitrile (MG)
- Nitromusks and polycyclic musks
- Substances with potential for endocrine disruption of Category 1 or 2 in accordance with official EU lists. The EU report on endocrine disrupters can be read in full at [http://ec.europa.eu/environment/endocrine/documents/final\\_report\\_2007.pdf](http://ec.europa.eu/environment/endocrine/documents/final_report_2007.pdf) (from Appendix L, page 238)
- Substances that have been evaluated in the EU to be PBT (Persistent, bioaccumulable and toxic) or vPvB (very persistent and very bioaccumulable) in accordance with Annex XIII of REACH.
- Substances of very high concern listed on the candidate list [http://echa.europa.eu/chem\\_data/candidate\\_list\\_en.asp](http://echa.europa.eu/chem_data/candidate_list_en.asp).

Please note the requirement (R18) regarding maximum content of phosphorous for products to be placed on the Norwegian market.

- ☒ Duly completed and signed declaration of conformity with the requirement: Appendix 3 or equivalent for the product and Appendix 4 or equivalent for ingredients.

## **R8 Colouring agents**

Colouring agents that can be found in the product or in ingredients must not be bioaccumulating. A colouring agent is not considered bioaccumulating if  $BCF < 500$  or  $\log K_{ow} < 4.0$ . If both BCF and  $\log K_{ow}$  values are available, the highest recorded BCF value shall be used. Colouring agents approved for foodstuffs may be accepted.

- ☒ Documentation of the colouring agent's BCF or  $\log K_{ow}$  or specification of E-number.

## R9 Preservatives

- a) Preservatives that can be found in the product or in ingredients must not be bioaccumulating. Preservatives are considered biodegradable if  $BCF < 500$  or  $\log K_{ow} < 4.0$ . If both BCF and  $\log K_{ow}$  values are available, the highest recorded BCF value shall be used.
- b) The concentration of preservatives shall be optimised to the volume of the product. A challenge test or equivalent shall be used to demonstrate this.

- Documentation of BCF or  $\log K_{ow}$ .
- Test report of conducted challenge test or equivalent demonstrating that an optimal concentration of preservatives is used in the product. See Appendix 2 for requirements on test laboratories and information on challenge tests.

## 1.3 Dosage, ecotoxicity and biodegradability

### R10 Maximum dosage

Dosage is calculated as the recommended dosage in grams per litre of water.

The recommended dosage must not exceed 1.0 gram per litre of water.

*For density calculations, density at room temperature shall be used. If the dosage is specified as an interval, the highest figure in the interval shall meet this requirement (as too regarding WBR in R16).*

- Calculation of dosage per litre of water and a product label (or draft label) with the specified dosage.

### R11 Long-term environmental effects

Substances that are classified as environmentally hazardous are only permitted in limited quantities in the product, as specified below.

Substances that are classified with any of the following risk phrases R50/53, R51/53 or R52/53 or hazard statements H410, H411 or H412 are limited as follows:

Requirement:  $FV = 100 * C_{R50/53} + 10 * C_{R51/53} + C_{R52/53} \leq 0.030$  gram/litre in-use solution

or

Requirement:  $FV = 100 * C_{H410} + 10 * C_{H411} + C_{H412} \leq 0.030$  gram/litre in-use solution

Where:

FV = Factor value

$C_{R50/53 / H410}$  = concentration of substances classified as R50/53 or H410 in gram/litre in-use solution\*

$C_{R51/53 / H411}$  = concentration of substances classified as R51/53 or H411 in gram/litre in-use solution\*

$C_{R52/53 / H412}$  = concentration of substances classified as R52/53 or H412 in gram/litre in-use solution\*

*\* the constituent quantity in the product of the substances with the classification in question at a dose of 0.60 gram/litre in-use solution if the dosage specified on the label is  $\leq 0.6$  g/l. If the specified dosage of the product is greater than 0.60 g/l in-use solution, the specified dosage shall be used.*

Surfactants classified with H411 or H412 are exempted from the requirement, provided that they are readily degradable\* and anaerobically degradable\*\*.

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

\*\* In accordance to the DID-list or ISO 11734, ECETOC No. 28 (June 1988) or other equivalent test methods, where a minimum of 60% degradability under anaerobic conditions is achieved.

If no details of a substance's environmental properties are available it is considered a "worst case" environmental hazard with classification R50/53 (H410).

- Declaration of surfactants that are exempted from the requirement (quantity, classification, degradability).
- Summary of the product's content in percentage by weight of substances classified as R50/53 (H410), R51/53 (H411) and R52/53 (H412). Appendix 3 for the product and Appendix 4 for ingredients, or equivalent, can be used to document the content of the specified substances.
- Calculations according to the specified formula demonstrating the fulfilment of the requirement.
- Safety data sheet for each constituent ingredient specifying its environmental hazard (acute aquatic toxicity, biodegradability and/or bioaccumulating characteristics) as for R1.

## R12 Surfactants – aerobic and anaerobic biodegradability

a) All surfactants must be readily aerobically biodegradable.

b) All surfactants must be anaerobically biodegradable

- Reference to the DID-list dated 2007 or later.
- If the DID-list does not contain relevant data, data can be taken from the safety data sheets provided that the data are reliable and that test methods comply with Appendix 2. Section B of the DID-list shows how the various factors are calculated. It is also permitted to refer to analogous arguments as long as these are carried out by a competent third party. It is also permitted to refer to relevant literature that has been scientifically evaluated.

## R13 Critical dilution volume (CDV)

The critical dilution volume (CDV) shall be calculated for all chemicals contained in the hand dishwashing agent. CDV is a theoretical value that takes into regard each substance's toxicity and biodegradability.

The products CDV is calculated at a dose of 0.60 g/l in-use solution if the specified dosage is  $\leq 0,60$  g/l. If the recommended dosage is greater than 0.60 g/l, the recommended dosage shall be used for calculations.

The product's CDV must not exceed the following limit values for  $CDV_{chronic}$  or  $CDV_{acute}$ \*

$$CDV_{chronic} \leq 2500 \text{ litres}$$

$$CDV_{acute} \leq 2500 \text{ litres}$$

CDV is calculated according to the following formula. CDV shall be calculated for all substances in each ingredient and for all constituent ingredients in the product.

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

or

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

$\text{dose}_i$  = the quantity of each substance in g/litre in-use solution\*

$DF_i$  = degradation factor of substance i

$TF_{chronic}$  = chronic toxicity factor

$TF_{acute}$  = acute toxicity factor

\* The dosage is set at 0.60 g/l if the recommended dosage specified on the packaging is  $\leq 0.60$  g/l. If the recommended dosage is  $> 0.605$  g/l, the recommended dosage is used.

Documentation shall primarily refer to the DID list of 2007 or later. For substances not covered by this list, other documentation such as test reports and literature references may be submitted. For more information, refer to Section B of the DID list.

- ☒ Calculation of  $CDV_{acute}$  or  $CDV_{chronic}$  for the hand dishwashing agent demonstrating compliance with the requirement. Documentation for each substance that refers to the DID list dated January 2007 or later. Part B shall be used for substances not found on the DID list.

## 1.4 Packaging

### R14 Plastics

Plastic packaging and labels containing PVC or plastic based on other types of chlorinated materials must not be used.

- ☒ Data sheet or declaration specifying the plastics that are used. Appendix 3 or equivalent declaration may be used.

### R15 DIN labelling

To facilitate identification for recycling, plastic bottles that are used as packaging must be marked in accordance with DIN 6120, section 2, ISO 11469:2000 or equivalent standard. Stoppers, bottle caps and pumps are exempt from this requirement.

- ☒ Documentation of primary packaging demonstrating that marking complies with DIN 6120 or equivalent marking regulations. Images of the product marking or data sheet specifying the marking. Marking may also be specified on the submitted label.

### R16 Weight-utility ratio (WUR)

Wight-to-benefit ratio (WUR) is a parameter that aims to reduce the amount of packaging and promote the use of recycled materials. WUR is a measure of the amount of packaging that is used to deliver a quantity of the product with a predetermined benefit. Note that the functional dose in the calculation is the highest specified dose for 1 litre of water based on the dosage specified on the packaging.

The requirement regarding WUR is as follows:

$$WUR = \sum [(W_i + N_i)/(D_i * t_i)] < 0.15$$

$W_i$  = Weight of the primary packaging component (i) in grams including cap, dispenser or similar.

$N_i$  = weight (g) of non-recycled (virgin) material in packaging component (i) in gram.

If the proportion of recycled material in the packaging component is 0%,  
 $N_i = W_i$ .

*Packaging is considered postconsumer recycled if the raw materials are recovered from distribution and/or following use by consumers. If the raw material is industrial waste from the material or packaging manufacturer's own production, the material is not considered postconsumer recycled.*

$D_i$  = Number of doses in the primary packaging component (i).

$t_i$  = Reuse factor. I.e. the number of times that the packaging component (i) is reused.

$t = 1$  if the packaging is not reused for the same function (disposable packaging).

$t > 1$  may only be used if supported by documentation demonstrating that the packaging is reused for the same function.

- ☒ Calculation of the weight-to-benefit ratio (WBR) and documentation regarding reuse of the packaging, if applicable.
- ☒ Declaration from the packaging manufacture regarding the content of recycled materials (if recycled materials are used).

### **R17 Take-back system**

Pertinent 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 company markets its hand dishwashing detergent (such as PYR, REPA, Grønt Punkt).

- ☒ Copies of agreements from the applicant demonstrating adherence to existing recycling/take-back agreements for each Nordic country where the product is to be sold. Appendix 3 or equivalent declaration may be used.

## **1.5 User information and instructions on sustainable use**

### **R18 Dosage and user instructions**

The product's primary packaging must provide information on the recommended dosage.

The recommended dosage for normal soiling shall be clearly and plainly stated on the label/packaging.

Regarding consumer products, the dosage shall be given as X millilitres per Y litres of water, or as Z teaspoons\* per Y litres of water.

Regarding products for professional use, the dosage can be stated as X millilitre, Y pumps or some other standardised measure per Z litres of water.

*\* 1 teaspoon = 5 ml*

Products containing phosphates must display the following or equivalent text on the label in the appropriate language for the country of sale:

"Innehåller fosfat och bör därför inte användas utanför det kommunala avlopps nätet". (Contains phosphates. Should only be used if connected to the municipal waste water system.)

*Note that there is a Norwegian requirement of max 0.2% phosphorus in hand dishwashing detergent.*

- ☒ Label, draft of the label or copy of the information (regarding dosage and, if applicable, additional information on phosphates) on the primary packaging. For professional products, a product data sheet is also required. Labels and other kind of information stated above shall be written in all relevant languages if a product is to be sold in more than one Nordic country.
- ☒ For products sold in Norway it must be specified that the hand dishwashing detergent contains no more than 0.2% phosphorus.

## 2 Performance

### R19 Performance test

Performance is a measure of how well the product cleans (ability to remove soiling) and cleaning capacity (how long the product lasts). Performance is relative to a reference product.

The product must be as good as or better the reference product. This means that the test product is considered to have fulfilled the performance requirements when positive results (equal or better than the reference product) are obtained in at least 80% of the test rounds (e.g. 4 out of 5). As an alternative, the applicant may use statistical methods and demonstrate with a one-sided 95% confidence interval that the test product is as good as or better than the reference product in at least 80% of test rounds.

The performance test shall be conducted by a laboratory within the framework specified by Appendix 5. The test results shall be documented in accordance with Appendix 5. The test shall be performed by a laboratory complying with Appendix 2.

- The reference product is tested at the lowest recommended dosage that is stated on the packaging. If no dosage instructions are provided, the same dosage is used as for the test product.
  - The test product is tested at the lowest recommended dosage.
  - The reference product is defined as one of the well-established (3-4 market-leading) hand dishwashing detergents in a Nordic country or the Nordic region. *A list of reference products is available from Nordic Ecolabelling.*
  - The reference product shall be different from the product to be ecolabelled. The reference product must come from a different manufacturer than that of the product to be ecolabelled.
  - The reference product must be purchased in connection with the performance of the test.
  - A product designed for the professional market shall be tested against another professional product, and a consumer product against another consumer product. If the product is marketed for both professional and consumer use it shall be tested against a professional product.
- ☒ Test report in accordance with Appendix 5 demonstrating that product performance is as good as or better than the reference product.
- ☒ Documentation regarding the test laboratory in accordance with Appendix 2.

### 3 Quality and regulatory requirements

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

If the environmental management system of the hand dishwashing detergent manufacturer is certified to ISO 14 001 or EMAS, where the following procedures are applied, it is sufficient if the accredited auditor certifies that the requirements are implemented.

#### **R20 Licence administrators**

The company shall appoint a contact person responsible for ensuring the fulfilment of Nordic Ecolabel requirements.

- ☒ A chart of the company's organizational structure detailing the responsible contacts.

#### **R21 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).

- 🔍 On-site inspection.

#### **R22 Quality of the hand dishwashing detergent**

The licensee must guarantee the quality during production of the Nordic Ecolabelled hand dishwashing detergent for the validity period of the licence.

- 📄 Procedures for collating and, where necessary, dealing with claims and complaints regarding the quality of the Nordic Ecolabelled hand dishwashing detergent.

#### **R23 Planned changed and unplanned deviations**

Written notice must be given to Nordic Ecolabelling of planned changes in products and markets and unforeseen nonconformities that have a bearing on Nordic Ecolabel requirements.

- 📄 Procedures detailing how planned changes in products and markets and unplanned deviations are handled and how Nordic Ecolabelling will be informed.

#### **R24 Traceability**

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

- 📄 Description of/procedures for the fulfilment of the requirement.

#### **R25 Laws 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 Nordic Ecolabelled hand dishwashing detergent is manufactured.

- ☒ Signed application form.

## 4 Marketing

The Nordic Ecolabel is a very well-known and well-reputed trademark in the Nordic region. A Nordic Ecolabelled hand dishwashing detergent may be marketed using the Nordic Ecolabel as long as the associated licence is valid.

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

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

### **R26 Product characteristics**

The product may not be marketed for uses other than those detailed by the criteria document. See the sections "What can carry the Nordic Ecolabel?".

- Label, draft of the label or copy of the information on the primary packaging (in relevant Nordic languages depending on where the product is to be sold). For professional products, a product data sheet is also required.

### **R27 Marketing**

Marketing of Nordic Ecolabelled hand dishwasher detergent shall comply with "Regulations for the Nordic Ecolabelling of products" of 22 June 2011 or later version.

- Appendix 1 duly completed and signed.



## Design of the Nordic Ecolabel

The Nordic Ecolabel has the following design:



Licence number

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

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

## Follow-up inspections

Nordic Ecolabelling may decide to inspect the hand dishwashing detergent's compliance with Nordic Ecolabelling requirements during the licence period. This may involve site visits, random sampling or similar tests.

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

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

## How long is a licence valid?

Nordic Ecolabelling adopted version 5 of the criteria for hand dishwashing detergent on 21 March 2012. The criteria are valid until 31 March 2016.

On 12 December 2012 the Nordic Ecolabelling Board adopted a change in R11. The new version is called 5.1.

An 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 the licence.

## **New criteria**

In the next revision, the performance test framework may be reviewed to mirror better common use patterns.

- The limit values for CDV and environmentally hazardous substances will be reviewed.
- The scope to introduce requirements on the production of ingredients in the form of a cross examination of raw material production.
- Evaluation of the IKW test.
- Evaluation of the packaging components.

## Appendix 1 Marketing of Nordic-Ecolabelled hand dishwashing detergents

We hereby certify that we are well acquainted with the regulations governing the use of the Nordic Ecolabel, as detailed in "Regulations for the Nordic Ecolabelling of products" of 22 June 2011 or later version. We agree to follow these regulations when marketing the Nordic Ecolabelled hand dishwashing detergent.

Further, we confirm that we are familiar with the criteria document regarding the Nordic Ecolabelling of hand dishwasher detergents.

We undertake to advise those individuals within the company involved in marketing the Nordic Ecolabelled hand dishwasher detergent of the criteria for the Nordic Ecolabelling of hand dishwasher detergent and "Regulations for the Nordic Ecolabelling of products" of 22 June 2011 or later version.

Location and date	Company
Signature, contact person	
Name in block capitals	Phone
Signature of marketing director	
Name in block capitals	Phone

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

## **Appendix 2 Analyses, test methods and calculations**

### **1A Requirements on the analysis laboratory**

The following stipulations apply regarding ecotoxic effects and challenge tests. The analysis laboratory must be competent and impartial as specified below.

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

For Challenger tests, the applicant's own analysis laboratory/test procedure may be approved for analysis and testing if:

- The manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9000.
- The test method for performance test is part of the quality system.
- Nordic Ecolabelling shall have access to all raw data from performance testing.

### **1B Requirements on the analysis laboratory for performance testing**

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

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

- The manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9000.
- The test method for performance test is part of the quality system.
- Nordic Ecolabelling shall have access to all raw data from performance testing.

## **2 Ecotoxicological test methods**

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

## **3 Acute aquatic toxicity**

Acute aquatic toxicity is tested with the aid of test methods Nos. 201, 202 and 203 in OECD guidelines for testing of chemicals (ISBN 92-64-1222144) or equivalent test methods.

#### **4 Bioaccumulation**

A substance is considered bioaccumulating if tested for bioaccumulation on fish according to method OECD 305 A E and its bioconcentration factor (BCF) is > 500. If no BCF value has been determined, a substance is considered bioaccumulating if its  $\log K_{ow}$  value  $\geq 4.0$  according to method 107, 117 or 123 in the OECD Guidelines for the Testing of Chemicals (ISBN 92 64 1222144) or equivalent method, unless proven otherwise. If the maximum measured BCF  $\leq 500$ , the substance is not considered bioaccumulating even if  $\log K_{ow} \geq 4.0$ .

OECDs test method 107 cannot be used for surface-active substances, which are both fat and water soluble. Based on current knowledge, for such substances it must be shown to a high degree of certainty that the substance itself and its decomposition products do not pose a long-term hazard to aquatic organisms.

Data models (such as BIOWIN) are permitted but if the results of an approximation are close to the set limit values or if Nordic Ecolabelling holds contradictory information, more reliable information is required.

#### **5 Aerobic biodegradability**

Test methods 301 (A to F) or 310 in the OECD Guidelines for the Testing of Chemicals (ISBN 92 64 1222144) should be used to test aerobic biodegradability.

Other scientifically accepted test methods may also be used. The test results of such equivalent methods must be evaluated by an independent body.

#### **6 Anaerobic degradability**

Use ISO 11734, ECOTOC no. 28 (June 1988) or equivalent test method to determine anaerobic biodegradability. For a substance to be considered to biodegrade anaerobically, a mineralisation of > 60% within 60 days is required (equivalent to > 60% ThOD/ThCO<sub>2</sub> or > 70% DOC reduction).

#### **7 DID list**

The DID list is common to the European ecolabel and Nordic Ecolabelling. The list has been established in collaboration with stakeholders from industry and consumer and environmental organisations. The list contains information on the toxicity and biodegradability of substances that may be used in chemical/technical products. The DID list does not show which substances can be used in ecolabelled products.

The DID list cannot be used to document the toxicity of individual substances for classification purposes. For this purpose, MSDS, pertinent literature and information from the primary producer shall be used.

The DID list is available from the ecolabelling body or via the relevant national Nordic Ecolabelling website (see page 2 for addresses). The list can also be found at:

[http://ec.europa.eu/environment/ecolabel/ecolabelled\\_products/categories/did\\_list\\_en.htm](http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/did_list_en.htm)

If an ingredient is not found on the DID list, the factors shall be set as described in part B of the DID list:

[http://ec.europa.eu/environment/ecolabel/ecolabelled\\_products/categories/pdf/did\\_list/didlist\\_part\\_b\\_en.pdf](http://ec.europa.eu/environment/ecolabel/ecolabelled_products/categories/pdf/did_list/didlist_part_b_en.pdf)

Valid to these criteria is the DID list dated January 2007 or later.

To calculate CDV in R13, a worksheet is available from Nordic Ecolabelling and can be downloaded from the Swedish and Danish Web site

<http://www.svanen.se/Foretag/Kriterier/kriterie/?productGroupID=20001>

<http://www.ecolabel.dk/producenter/kriterier/kriterieliste/kriteriedetaljer?marke=Svanen&produktgruppe=25>

If no data for chronic toxicity are available, acute data and the associated safety factor can be used to estimate the chronic toxicity factor.

## **8 Challenge test**

To avoid the unnecessary use of preservatives and to ensure that the quantity of preservatives is sufficient, a requirement is set regarding the quantity of preservatives in relation to the volume of the product. This is documented using a challenge test or equivalent and shall be performed during the development of the product.

Challenge test designates a group of tests used to determine the correct/necessary concentration of preservatives in products. Test samples are prepared with different concentrations of preservatives as well as a control without preservatives. A mixture of bacteria, yeasts and moulds are added to the samples which are tested for growth after seven days. This continues for a minimum of 28 days (some tests require a minimum of six weeks). The sample with the lowest concentration of preservatives that does not exhibit microbial growth has the correct/optimum concentration of preservatives. Different manufacturers and suppliers of preservatives use different challenge tests/methods to determine the correct concentration of preservative. Examples include: Koko Test (Test Method SM 021), USP Challenge Test (US Pharmacopoeia) and CTFA Challenge Test (Cosmetics Toiletries and Fragrance Association).

## Appendix 3 Declaration from the producer of the hand dishwashing detergent

For use in applications for the Nordic Ecolabel licence for hand dishwashing detergent. To be able to complete the following declaration requires completed declarations for all ingredients (Appendix 4 or equivalent).

This declaration is based on best knowledge at the time of application, based on the test and/or declarations from the manufacturer of raw materials. With reservations for developments and new scientific findings. If such new knowledge should be made available, the undersigned is required to submit an updated declaration to Nordic Ecolabelling.

Product name: \_\_\_\_\_

Consumer/retail product

Professional product

*\*Products are considered professional if more than 80% of sales are to the professional market.*

*The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers), with the exception of impurities from primary production. Impurities are defined as residual products from primary production that can be found in the product in concentrations below 0.010% (100 ppm). Substances that are actively added to an ingredient or product for a particular purpose are not considered to be impurities, irrespective of quantity. Impurities of over 1.0% concentration in the primary product are regarded as constituent substances. Substances/products known to be liberated by a constituent substance (e.g. formaldehyde and arylamine) are also themselves considered to be constituent substances.*

R3: Does the product contain any substances that are or that can liberate substance that are classified as carcinogenic (Carc), mutagenic (Muta), reproductive toxic (Repr) or harmful to breast-fed children (Lact.) according to Table 2? Yes  No

R4: Does the product contain substances classified as sensitizing/allergenic with H334/R42 and/or H317/R43? (See also the specific requirements on fragrances i 5b and c) Yes  No

R5: Does the product contain fragrances and/or plant extract? Yes  No

5a. If yes, is the fragrance handled in accordance with IFRA guidelines? Yes  No

R7: Does the product contain:

Alkylphenoethoxylates (APEO) and/or its derivatives? Yes  No

Alkylphenol derivatives (APD)? Yes  No

Ethylene diamine tetraacetic acid (EDTA) and its salts? Yes  No

Quaternary ammonium salts that are not readily biodegradable? Yes  No

Methyldibromoglutaronitrile (MG) Yes  No

Nitromusks and/or polycyclic musks? Yes  No

Substances that fulfil PBT and vPvB criteria on the candidate list for substances of very high concern (Annex XIII of the REACH regulation)? Yes  No

Substances that are considered potential endocrine disrupters (EDC category I or II in the EU strategy on endocrine disrupters)? Yes  No

Substances of very high concern according to REACH, article 59, Annex XIV? Yes  No

**R8:** Does the product contain colourants? Yes  No   
If yes, specify the logK<sub>OW</sub>, BCF or E-number: \_\_\_\_\_

**R9:** Does the product contain preservatives? Yes  No   
If yes, specify the logK<sub>OW</sub> or BCF: \_\_\_\_\_

**R11:** Does the product contain substances carrying any of the following hazard statements/risk phrases?  
H410 / R50/53? Yes  No   
H411 / R51/53? Yes  No   
H412 / R52/53? Yes  No

**Packaging (R14, R17)**

**R14:** Does the packaging (including label) contain PVC or other chlorine-based plastic? Yes  No

**R17:** Are pertinent national regulations, legislation and/or agreements within the sector regarding recycling systems for products and packaging met in the Nordic countries in which the Nordic Ecolabelled product is/will be marketed?  
Finland (e.g. PYR)  
Sweden (REPA)  
Norway (Grønt Punkt)

If the answer is yes to any of the above questions (excluding R14 and R17), specify the name, CAS number, concentration and purpose of adding each substance in question:

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*If the composition of the product is altered, a new declaration on the fulfilment of the requirements shall be sent to Nordic Ecolabelling.*

Location and date:	Company name/stamp
Responsible member of staff:	Responsible (signature):



## Appendix 4 Declaration from the manufacturer of the rawmaterial

For use in applications for the Nordic Ecolabel licence for hand dishwashing detergent.

This declaration is based on best knowledge at the time of application. With reservations for developments and new scientific findings. If such new knowledge should be made available, the undersigned is required to submit an updated declaration to Nordic Ecolabelling.

Ingredient name: \_\_\_\_\_

*The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers), with the exception of impurities from primary production. Impurities are defined as residual products from primary production that can be found in the product in concentrations below 0.010% (100 ppm). Substances that are actively added to an ingredient or product for a particular purpose are not considered to be impurities, irrespective of quantity. Impurities of over 1.0% concentration in the primary product are regarded as constituent substances. Substances/products known to be liberated by a constituent substance (e.g. formaldehyde and arylamine) are also themselves considered to be constituent substances.*

*It must be stated in this declaration whether any of the substances below are part of the raw material, regardless of whether they are pollutants or not, and regardless of amount. This must then be explained in more detail on page 2 of this declaration.*

R3: Is the ingredient or any of its constituent substances classified or liberate substances that are classified as carcinogenic (Carc), mutagenic (Muta), reproductive toxic (Repr) or harmful to breast-fed children (Lact.) according to Table 2? Yes  No

R4: Is the ingredient or any of its constituent substances classified as sensitizing/allergenic with H334/R42 and/or H317/R43? (See also the specific requirements on fragrances i 5b) Yes  No

R5: Does the ingredient contain fragrances or plant extracts? Yes  No

5a. If yes, is the fragrance handled and added in accordance with IFRA guidelines? Yes  No

5b. If yes (requirement 5), does the fragrance contain substances subject to declaration according to Regulation (EC) no 648/2004 on detergents with amendments (see Appendix 6)? Yes  No

5c. If yes (requirement 5), does the fragrance contain substances classified as H334/R42 and/or H317/R43? Yes  No

R7: Does the ingredient contain:

Alkylphenoethoxylates (APEO) and/or its derivatives? Yes  No

Alkylphenol derivatives (APD)? Yes  No

Ethylene diamine tetraacetic acid (EDTA) and/or its salts? Yes  No

Quaternary ammonium salts that are not readily biodegradable? Yes  No

Methyldibromoglutaronitrile (MG)? Yes  No

Nitromusks and/or polycyclic musks? Yes  No

Substances that fulfil PBT and vPvB criteria on the candidate list for substances of very high concern (Annex XIII of the REACH regulation)? Yes  No

Substances that are considered potential endocrine disrupters (EDC category I or II in the EU strategy on endocrine disrupters)? Yes  No

"Substances of very high concern" according to REACH, article 59, Annex XIV? Yes  No

**R8:** Is the ingredient or any of its constituent substances a colouring agent? Yes  No

If yes, specify logK<sub>OW</sub>, BCF or E-number: \_\_\_\_\_

**R9:** Is the ingredient or any of its constituent substances a preservative? Yes  No

If yes, specify logK<sub>OW</sub> or BCF: \_\_\_\_\_

**R11:** Is the ingredient or any of its constituent substances classified with the following hazard statements/risk phrases?

H410 / R50/53? Yes  No

H411 / R51/53? Yes  No

H412 / R52/53? Yes  No

If the answer to any of the above questions is yes, specify for each substance in question the name, CAS number, concentration in the ingredient and purpose of addition (for example if the substances is an impurity):

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*If the composition of the ingredient is altered, a new declaration on the fulfilment of the requirements shall be sent to Nordic Ecolabelling.*

Location and date:	Company name/stamp
Responsible member of staff:	Responsible (signature):

## **Appendix 5      Performance test**

The purpose of the performance test is to demonstrate the satisfactory ability and capacity of an ecolabelled hand dishwasher detergent. The test procedure compares the test product (subject of the application) and a reference product with respect to cleaning ability and capacity. The use of test results in marketing should be avoided (and only used if the test method is specified in detail). The framework allows for a wide range of test procedures as long as the requirements below are a part of the test procedure. In the test, washing-up may be done by hand or a machine may be responsible for the mechanical work. Alternatively, the test may include no mechanical processing. The test is based on the washing of crockery (e.g. plates).

### **Framework**

The test shall be performed according to the following framework. At least five repetitions must be performed in which the test and reference products are compared with one another. Each repetition shall comprise two subtests – one for the test product and one for the reference product. The reference product and the test product shall be anonymous to the tester.

The elements and stages included in each repetition must be decided in advance and must be identical for each repetition (e.g. application of soil, processing and possible rinsing). The temperature and relative humidity of the room must be measured and kept reasonably constant in all repetitions (measured at beginning and end of test).

### Water test

In addition to the 10 subtests, a further test shall be performed in the same way as the other subtests but that uses water alone (no detergent). The water test shall demonstrate that the chosen test method is suitable for testing the cleaning performance of the hand dishwashing detergent. If the test demonstrates that water cleans equally as well as the hand dishwashing detergents, the test is unsuitable. The water test shall be performed after testing the test product and reference product respectively. The test is to be performed on the same number of plates as the capacity test. For example, if the average capacity of the reference product is 20 plates and that of the test product is 22 plates, 21 plates shall be used for the water test.

### **Soil selection and preparation**

The soil shall primarily consist of animal and vegetable fats. It should also contain proteins and carbohydrates (e.g. egg and flour). This means that soil should primarily contain fats. The origin or chemical composition of the soil must be described in detail (e.g. olive oil or animal fat). The soil must be homogenous and of even consistency. Enough soil for all 11 subtests must be prepared in one batch.

## **Water**

The water hardness and the calcium-magnesium-ratio must be known. The calcium-magnesium-ratio can be determined using deionised/distilled water that is then hardened with known quantities of calcium. The test shall be performed using water of a typical hardness for the area in which the product is to be sold. Justification must be provided for the selection of water hardness.

Water hardness shall be specified in whole German degrees of hardness (°dH).

1°dH = 10 mg CaO or 7.19 mg MgO (0.179 mmol metal ions/litre) or equivalent quantity of other metal oxides per litre of water.

## **Preparation of washing water**

The volume of water must be determined in litres to one decimal point. The same volume of water must be used in all repetitions. The temperature of the water shall be measured in Celsius at the start and must be the same for all repetitions. The temperature shall be measured at the start and end of the washing cycle.

The test and reference detergent shall be dosed according to the lowest dosage recommended for each product respectively. The dosage shall be measured to one decimal point and shall be the same in all repetitions. The detergent must be mixed and completely dissolved in the water.

## **Test procedure**

The quantity of soil must be weighed in grams (or smaller unit) to two significant figures for each repetition.

The soil shall be introduced in the same way in each repetition via the crockery to be washed. All processing shall be performed in a predetermined, controlled fashion for all tests, preferably with 20 circular movements on the front and 6 circular movements on the back of the plates. If a different method of processing is used, a description and justification of this must be provided.

## **Assessment of cleaning capacity**

The test must be capable of generating results that provide a measure of capacity, i.e. how long the dishwashing detergent lasts. The test is then stopped at predetermined conditions. The recommended conditions are when there is no more foam but other indicators may be used. If a different indicator than “no foam” is chosen, this must be described and justified. The number of plates is determined when the predetermined conditions are reached. Either the total number of plates or the number of clean plates can be counted.

## Assessment of cleaning ability

The test must be capable of generating results that provide a measure of cleaning ability. This may be through visual, optical, gravimetric or some other relevant method of analysis. The method of analysis and units of measure shall be determined in advance and specified. Visual inspection can be performed using a rating scale.

The following rating scale can be used. Evaluation shall be performed by two people using the same lighting conditions (preferably a 1000 1500 lux lamp). Both the front and reverse of the plate shall be evaluated together:

5 = Completely clean

4= 1-10 small fat droplets/spots with a maximum combined surface area of 4 mm<sup>2</sup>

3= More than 10 small fat droplets/spots with a combined surface area of 4-50 mm<sup>2</sup>

2 = Fatty coating of 50-200 mm<sup>2</sup>

1 = Fatty coating of more than 200 mm<sup>2</sup>

## Results

The cleaning ability and capacity of the reference product and test product shall be documented for each test repetition. A positive result of a test round is obtained when the cleaning ability and capacity is as good or better for the test product compared with the reference product.

The test product is considered to have fulfilled the performance requirements when positive results are obtained in at least 80% of the test rounds (e.g. 4 out of 5). As an alternative, the applicant may use statistical methods and demonstrate with a one-sided 95% confidence range that the test product is as good as or better than the reference product in at least 80% of test rounds.

## Documentation

The entire test shall be reported in accordance with the framework specified above. The report must contain the following points:

- Specification of the temperature and humidity in the test room and details describing how the test person(s) ensured that these conditions were kept constant in all repetitions.
- Description of the composition of the soil and of the procedure used to ensure that the soil was of a homogenous and even consistency.
- Specification of the hardness of the water, and how it was achieved, and specification of the calcium-magnesium ratio.
- Specification of the quantity of water used in each part of the test.
- Water temperature at the start and end of the test.

- Specification of the results of the weighing of the hand dishwashing detergent (test product and reference product) in each repetition and description of the procedure for dissolving the product in the water.
- Specification of the results of the weighing of the soil in each repetition and a description of how the procedure for apply the soil to the plates.
- Description of how the products are kept anonymous from the test individuals.
- Description of the other steps and stages in each individual repetition.
- Description of how cleaning capacity is evaluated/determined.
- Description of how cleaning ability is measured and/or evaluated.
- The partial results from all five repetitions stated in terms of cleaning capacity and ability, including all raw data.
- Results of the water test in which no detergent was used.
- Final results based on this raw data (and, if applicable, a statistical evaluation of the data).

## Appendix 6      Fragrances on the “26 list” (requirement R5)

Amyl cinnamal	122-40-7	Amylcinnamyl alcohol	101-85-9
Anisyl alcohol	105-13-5	Benzyl alcohol	100-51-6
Benzyl benzoate	120-51-4	Benzyl cinnamate	103-41-3
Benzyl salicylate	118-58-1	Cinnamal	104-55-2
Cinnamyl alcohol	104-54-1	Citral	5392-40-5
Citronellol	106-22-9	Coumarin	91-64-5
d-Limonene	5989-27-5	Eugenol	97-53-0
Farnesol	4602-84-0	Geraniol	106-24-1
Hexyl cinnamaldehyde	101-86-0	Hydroxycitronellal	107-75-5
Hydroxy methylphenyl cyclohexenecarboxaldehyde (= Lyral)	31906-04-4	Isoeugenol	97-54-1
		Linalool	78-70-6
Methyl heptine carbonate	111-12-6	Gamma-methyl ionone	127-51-5
Evernia prunastri extract	90028-68-5	Evernia furfuracea extract	90028-67-4