



Draft

**Swan labelling of
Dishwasher detergent**

Version 4.0 • XX month 200X — XX month 200X



Nordic Ecolabelling

In November 1989, the Nordic Council of Ministers adopted a measure to implement an official voluntary ecolabelling scheme, the Swan. The organizations/companies listed below administer the Swan ecolabelling schemes on assignment from their national governments.

For further information, please visit the respective Web sites:

Finland:

SFS-Ecolabelling
Pb 116
FI-00241 HELSINKI
Tel: +358 9 1499 331
Fax: +358 9 1499 3320
www.ecolabel.fi
joutsen@ecolabel.fi

Denmark:

Ecolabelling Denmark
Dansk Standard
Kollegievej 6
DK-2920 CHARLOTTENLUND
Tel: +45 72 300 450
Fax: +45 72 300 451
www.ecolabel.dk
info@ecolabel.dk

Norway:

Ecolabelling Norway
Tordenskiolds gate 6 B
NO-0160 OSLO
Tel: +47 24 14 46 00
Fax: +47 24 14 16 01
www.ecolabel.no
info@ecolabel.no

Iceland:

Ecolabelling Iceland
Umhverfisstofnun
Suðurlandsbraut 24
IS-108 REYKJAVIK
Tel: +354 591 20 00
Fax: +354 591 20 20
www.svanurinn.is

Sweden:

SIS Ecolabelling
SE-118 80 STOCKHOLM
Tel: +46 8 55 55 24 00
Fax: +46 8 55 55 24 01
www.ecolabel.se
svanen@ecolabel.se

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Quotations may be made provided that Nordic Ecolabelling is stated as the source.

Swan labelling of dishwasher detergent

017/Draft for comment, Date

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Why choose the Swan label?

- The company may use the Swan trademark for marketing. The Swan label is a very well-known and well-reputed trademark in the Nordic region.
- The Swan label is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- Reducing environmental impact often creates scope for lowering costs, such as by cutting the consumption of energy and reducing amounts of packaging and waste.
- Environmentally suitable operations prepare the company for future environmental legislation.
- Environmental issues are complex. It can take a long time and extensive resources to gain an understanding of a specific area. Swan labelling can be seen as an aid in this work.
- The Swan label not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Swan licence can also be seen as a mark of quality.

What can carry the Swan label?

Dishwasher detergent and a combination of dishwasher detergent and rinsing agent for household dishwashers can be Swan labelled. The rinsing agent may be integrated in the product or belong to the same product series. Rinsing agent alone **cannot** be labelled. If the rinsing agent is integrated in the product or comes separately, the combination of the rinsing agent and dishwasher detergent must fulfil the ecolabelling requirements.




How to apply

The criteria for dishwasher detergent comprise a combination of obligatory requirements and point score requirements. The letter "O" and a number or letter "M" and a number indicate obligatory requirements. These requirements must be fulfilled. (M denote quality and regulatory requirements.)

The letter "P" and a number distinguish point score requirements. Each requirement of this type gives a point score. These scores are then totalled. A minimum total score must be achieved to fulfil the licence constraints.

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.
-  Submit procedure in environmental and quality management system.

Application

The application shall be sent to Nordic Ecolabelling in the country in which the dishwasher detergent is sold. See page 2 for addresses. The documents required for application are 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 a licence in another Nordic country allows the Swan label to be used on a larger market. The following must be submitted to Nordic Ecolabelling:

- Form for sales in the country in question.
- Instruction manual in the local language.
- Documentation demonstrating the fulfilment of national regulations.
- Documentation demonstrating participation in a recycling system.

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

On-site inspection

During the application process, Nordic Ecolabelling normally performs an on-site inspection to ensure adherence to the requirements. For this inspection, data used for calculations, original copies of submitted certificates, 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 revenues produced by the dishwasher detergent carrying the Swan label.

Enquiries

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

What are the requirements of Swan labelling?

To be awarded a Swan licence:

- All obligatory requirements must be fulfilled.
- All quality and regulatory requirements must be fulfilled.
- A minimum score of 5 points must be achieved.

Total score

The dishwasher detergent must score at least 5 points to be eligible for Swan labelling.

Section	Max. score	Score
P1 Fragrance content	1	
P2 CDV	3	
P3 Phosphorous content	1	
P4 & P5 & P6 Dosage	3	
P7 Fill ratio	2	
Total	10	

1 Obligatory requirements on products and constituent substances

The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers). It does not however include impurities from primary production. Impurity refers to residues from primary production which may be found in the product at concentrations below 0.01% (100 ppm) provided the impurity has not been actively added for a particular purpose.

These criteria use the term dishwasher detergent to apply to dishwasher detergent alone and a combination of dishwasher detergent and rinsing agent (for a licence for an integrated/joint product). An integrated/joint product must fulfil the same requirements as dishwasher detergent alone.

1.1 General requirements

Obligatory requirements

O1 Recipe

The exact recipe for the product shall be submitted to Nordic Ecolabelling. The recipe shall include the trade name, chemical name, quantity, CAS register number and DID number of each ingredient. The function of each ingredient shall be stated. The recommended dosage must be stated as a mass, and whether the detergent is a powder or tablet.

The DID number is the number assigned to an ingredient on the DID-list and shall be used for the evaluation of chemical requirements. The DID-list is available from Nordic Ecolabelling. See page 2 for addresses. See Appendix 2 for a more information about the DID-list.

- Exact recipe as detailed above and material safety data sheet/product data sheet for each ingredient, in accordance with 2001/58/EG.

O2 Classification of the product

The product must not be classified as environmentally hazardous or harmful.

The product may however be classified as irritating (Xi) and subject to one or more of the following risk phrases:

- R36 Irritating to eyes
- R37 Irritating to respiratory system
- R38 Irritating to skin
- R41 Risk of serious damage to eyes

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

Note that the marketer of the product is responsible for the classification.

- MSDS/product sheet complying with Directive 2001/58/EC.

O3 Carcinogenic, mutagenic and reproduction toxic substances (CMR)

No substances that are classified with the following risk phrases or a combination of risk phrases may be included in the product or result from the degradation of substances in the product.

- R40 Possible risk of cancer
- R45 May cause cancer
- R46 May cause heritable genetic damage
- R49 May cause cancer by inhalation
- R60 May impair fertility
- R61 May cause harm to the unborn child
- R62 Possible risk of impaired fertility
- R63 Possible risk of harm to the unborn child
- R64 May cause harm to breastfed babies
- R68 Possible risks of irreversible effects (common for fragrances)

Declaration of fulfilment (Appendices 3, 4 and 5).

O4 Allergenic substances

The product must not contain more than 0.1 wt% of any substance classified as: R42 (May cause sensitization by inhalation) and/or R43 (May cause sensitization by skin contact)

Enzymes are exempted from this requirement.

Declaration of fulfilment (Appendices 3, 4 and 5).

O5 Enzymes

Enzymes may be present in liquid form or as dust-free granulate.

Declaration from the enzyme producer or details on the MSDS/product data sheet.

1.2 Requirements on particular substances

Obligatory requirements

O6 Critical Dilution Volume (CDV)

The products critical dilution volume must not exceed 70,000.

(If the application is for both dishwasher detergent and rinsing agent, these must be calculated together.)

- Calculation of the critical dilution volume for the product. The parameters and formulas required to document this requirement can be found in Appendix 2.

O7 Environmentally hazardous substances

These requirements apply to substances that are included in the product or are intentionally released during use. The total of aromatic raw materials is considered as a substance.

No substances that are classified with the following risk phrases may be included in the product:

- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

The product may contain a maximum of 0.1 g/wash of any substance that is classified with the following risk phrases:

- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Declaration of fulfilment (Appendices 3, 4 and 5). A specification of the total quantity of R51/53 and R52/53 substances. If data is missing, the substance is evaluated as a worst case.

O8 Phosphorous

The total quantity of phosphorous must not exceed 1.5 g/wash.

The total quantity of phosphonates must not exceed 0.05 g/wash.

National legislation takes precedence over this requirement.

- Exact recipe and declaration of the total quantity of phosphorous.

O9 Complexing agents

The following substances are prohibited:

- EDTA
- NTA
- DTPA

- Declaration of fulfilment (Appendices 3 and 4).

O10 Bleaching agents

The following substances are prohibited:

- Perborates
- Reactive chlorine compounds.

Declaration of fulfilment (Appendices 3 and 4).

O11 APEO, APD and LAS

The following surfactants are prohibited:

- alkyl phenol ethoxylates (APEO)
- alkylphenol derivatives (APD)
- linear alkylbenzene sulphonates (LAS)

Declaration of fulfilment (Appendices 3 and 4).

Point requirements**P1 Critical Dilution Volume (CDV)**

The products critical dilution volume is lower than 25,000: 3 p

The products critical dilution volume is between 25,000 and 50,000: 2 p

The products critical dilution volume is between 50,000 and 65,000: 1 p

Calculation of the critical dilution volume for the product. The parameters and formulas required to document this requirement can be found in Appendix 2.

P2 Phosphorous

The formulation is phosphate free: 1 p

Exact recipe.

1.3 Degradation

Obligatory requirements

O12 Readily biodegradable surfactants

Surfactants must be readily biodegradable in accordance with test method 301 A-F in OECD Guidelines for Testing of Chemicals, or other equivalent test method. It is, however, not necessary to fulfil the so-called 10-day window.

- Documentation that primarily refers to the DID-list dated 2004-06-15 or later. For surfactants not covered by this list, other documentation such as test reports and copies of literature references may be submitted.

DID-list: Detergents Ingredients Database.

O13 Anaerobic degradation

The content of substances that are not readily anaerobically biodegradable in the dishwasher detergent must not exceed 1.0 g/wash. Applies to organic substances only.

- Documentation that primarily refers to the DID-list dated 2004-06-15 or later. For substances not covered by this list, other documentation such as test reports and copies of literature references may be submitted. For test methods, see Appendix 2.

DID-list: Detergents Ingredients Database.

1.4 Fragrances, colorants and preservatives

Obligatory requirements

O14 IFRA

The fragrance must be used in accordance with IFRA guidelines. International Fragrance Association (IFRA) guidelines can be found on www.ifraorg.org/guidelines.asp.

Declaration from the fragrance manufacturer, signed Appendix 5.

O15 Allergenic substances in fragrances

Either requirement A or requirement B shall be fulfilled for the following allergenic substances:

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 salicylat	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-limonen	5989-27-5	Eugenol	97-53-0
Farnesol	4602-84-0	Gerianol	106-24-1
Hexyl cinnamal-dehyd	101-86-0	Hydroxycitronellal	107-75-5
Hydroxymethyl-phentyl cyclohex-ene-carboxaldehyde (= Lyral)	31906-04-4	Isoeugenol	97-54-1
Liilal	80-54-6	Linalool	78-70-6
Methyl heptine carbonate	111-12-6	Gamma-methyl ionone	127-51-5
Evernia prunastri extracts	90028-68-5	Evernia furfuracea extracts	90028-67-4

Requirement A:

The product must not contain more than 0.010 wt% (100 ppm) of any of the above substances.

Declaration from the fragrance manufacturer, Appendix 5.

Requirement B:

The substances above must be declared on the product packaging if they are present in concentrations above 0.0010 wt% (10 ppm).

Declaration from the fragrance manufacturer, Appendix 5.

Label, draft of the label or copy of the information on the primary packaging.

O16 Musk compounds

The product must not contain the following compounds (with CAS no.):

Musk xylene	81-15-2
Musk ambrette	83-66-9
Moskene	116-66-5
Musk tibetine	145-39-1
Musk ketone	81-14-1
HHCB	114109-62-5, 114109-63-6, 1222-05-5, 78448-48-3, 78448-49-4
AHTN	1506-02-1, 21145-77-7

- Declaration from the fragrance manufacturer, signed Appendix 5.

O17 Approved colorants

All organic colorants added to the product as ingredients or through raw materials shall fulfil the following requirement:

The colorant must be approved for use in foodstuffs or must not be bioaccumulating ($\log K_{ow} < 3.0$ or $BCF < 100$).

- Declaration of fulfilment (Appendices 3 and 4).

Specification of E-number (number designated on approval of foodstuff status), alternatively the $\log K_{ow}$ value (octanol-water partition coefficients) or BCF value (bioconcentration factor).

O18 Preservatives

Preservatives must not be bioaccumulating. This requirement applies to all preservatives in product ingredients and primary products.

- All preservatives must be stated in the recipe. Information regarding the bioaccumulability of the preservative must also be submitted. See Appendix 2 for the evaluation of bioaccumulability.

Point requirements

P3 Fragrances

The formulation is fragrance free: 1 p

or

The formulation contains no substances that are classified as R51/53 and/or R52/53: 1 p

The total of aromatic raw materials is **not** considered as one substance in this requirement.

- Exact recipe.

1.5 Dosage

Obligatory requirements

O19 Powder and tablets without rinsing agents

Maximum dosage: 18 g/wash.

Exact recipe.

O20 Combination with rinsing agent

Maximum dosage: 20 g/wash.

Exact recipe.

Point requirement

P4 Powder and tablets without rinsing agents

Dosage, g/wash	Score
----------------	-------

< 13	3
------	---

< 15	2
------	---

≤ 17	1
------	---

Exact recipe.

P5 Powder and tablets in combination with rinsing agent

Dosage, g/wash	Score
----------------	-------

< 15	3
------	---

< 17	2
------	---

≤ 19	1
------	---

Exact recipe.

2 Packaging and consumer information

Obligatory requirements

O21 General information

The declaration of contents must comply with Regulation 648/2004/EC on detergents.

The recommended dosage must only be specified for soft water (0-6 dH). For hard water, advice must be given to use a water softener in the dishwasher.

- Sample of label.
- MSDS or technical product data sheet.

O22 Information on phosphates

If the product contains phosphates, the product must display the following or equivalent text:

"Products that contain phosphates should only be used by households that are connected to a district wastewater system."

This requirement does not apply to the Norwegian market, which has its own regulations on phosphorous content.

- Sample of label.

O23 Weight-to-benefit ratio (WBR)

The products weight-to-benefit ratio (WBR) must not exceed 4.0 g/wash.

Refer to Appendix 2 for the calculation of the product's weight-to-benefit ratio (WBR).

- Calculation of the WBR for the product.
- Statement of the packaging's content of recycled material.

O24 Plastic packaging

PVC and other halogenated plastics must not be used for packaging.

Plastic packaging must be marked with the polymer type and corresponding symbol according to DIN 6120, section 2, or equivalent.

- Declaration that the requirement is fulfilled and checked on inspection visits.

Point requirement**P6 Fill ratio**

The fill ratio is the ratio between the number of doses and the package volume in litres. This can be calculated as the average for all package sizes for the same product variant.

Fill ratio, doses/litre	Score
> 30	2
≥ 25	1

Calculation of the fill ratio.

3 Performance**O25 Dishwasher detergent performance**

The performance of the dishwasher detergent must at the standard recommended dose equal or better the reference detergent.

A market-leading dishwasher detergents that are well-established on the Nordic market at the time of application may also be used as the reference detergent.

Performance shall be tested using one of the following methods:

- EN 50242 (1998 or later version) with the modifications detailed in Appendix 6 "Performance test supplement".
- Standard test for dishwasher detergents developed by IKW (German Industrial Association of the Manufacturers of Toiletries and Detergents). The product must meet the Pass/Fail level requirements, see Appendix 7.
- Comparable performance test (internal or external) that has been validated by an independent party. An example of an approved framework test is provided in Appendix 8.
- The product carries an EU Flower.

Test method, test results and conclusions.

4 Quality and regulatory requirements

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

M1 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 Swan-labelled product is manufactured.



Signed application form.

M2 Swan licence administrator

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



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

M3 Documentation

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



Checked on site.

M4 Changes and nonconformities

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



Procedures detailing how changes and nonconformities are handled.

M5 Take-back system

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 products.



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

M6 Marketing

Marketing of the Swan-labelled dishwasher detergent shall comply with "Regulations for Nordic Ecolabelling" of 12 December 2001 or later version.



Appendix 1 duly completed.

Design of the Swan label

Design of the Swan label:



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 Nordic Ecolabelling" of 12 December 2001 or later version.

Follow-up inspections

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

The licence may be revoked if it is evident that requirements are not fulfilled.

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

How long is a licence valid?

Nordic Ecolabelling adopted version 4 of the criteria for dishwasher detergents on xx. These criteria are valid through xx.

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.

At least one year prior to the expiry of the present criteria, the criteria will be revised or extended.

New criteria

The following will be reviewed in future criteria:

- Total ban on phosphates.
- Possibility to require the use of renewable primary products.
- Possibility to set requirements on the manufacture of the dishwasher detergent.

Appendix 1 Marketing of Swan-labelled dishwasher detergents

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

Further, we confirm that we are familiar with the criteria document regarding the Swan labelling of dishwasher detergent.

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

Location and date	Company
-------------------	---------

Signature, contact person

Clarification of signature	Phone
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Signature, marketing manager

Clarification of signature	Phone
----------------------------	-------

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

Appendix 2 Formulas and test methods

CDV calculation

The critical dilution volume (CDV) is calculated as follows:

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

Dosage(i) = Dosage of component i, expressed in g/wash

DF(i) = Degradation factor for component i.

TF(i) = Toxicity factor for component i.

- ☒ DF(i) and TF(i) are specified in the DID-list. Reference shall be made to the DID-list. If the substance is listed on the DID-list, the parameters shall be calculated in accordance with the guidelines in section B of the DID-list, and the relevant documentation shall be enclosed with the application.

Weight-to-benefit ratio (WBR)

WBR is calculated for primary packaging only:

$$WBR = \sum [(W_i + N_i)/(D_i * t_i)], \text{ where}$$

W_i = weight (g) of packaging component (i) including label.

N_i = weight (g) of non-recycled (virgin) material in packaging component (i). If the proportion of recycled material in the packaging component is 0%, $N_i = W_i$.

D_i = number of standard recommended dosages that packaging (i) contains.

t_i = the number of times packaging component (i) is used for the same purpose through a return or refill system ($t_i=1$ if the packaging is not reused for the same purpose).

Analysis and test laboratories

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:

- sampling and analysis is monitored by the authorities, or
- the manufacturer's quality assurance system covers analysis and sampling and is certified to ISO 9001 or ISO 9002, or
- the manufacturer can demonstrate agreement between 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.

Aquatic acute toxicity

Use test methods 201, 202 and 203 in the OECD guideline for testing of chemicals, or equivalent method to test aquatic acute toxicity.

Bioaccumulation

If nothing else is proven, the substance is classified as bioaccumulating if $\log K_{ow} \geq 3.0$ in accordance with OECD guideline test method 107, 117 or equivalent. Such a substance can be tested on fish according to OECD test method 305 A-E. If the substance's biologic concentration factor (BCF) is greater than 100, the substance is deemed bioaccumulating, and if lower than 100 non-bioaccumulating. If the substance has a BCF, this determines the substance's bioaccumulation potential.

Aerobic degradation

Use test methods 301 (A to F) in the OECD guideline, or equivalent method to test aerobic degradation.

Anaerobic degradation

Use ISO 11734, ECOTOC no. 28 (June 1988) or equivalent test method to determine anaerobic degradation. The minimum requirement is 60% biodegradability under anaerobic conditions.

The following exceptions can be made for substances that are not surfactants or toxic to the aquatic environment ($LC_{50}/EC_{50}/IC_{50} > 10$ mg/l)

- 1) Ready biodegradability and low adsorption ($A < 25\%$), or
- 2) Ready biodegradability and high desorption ($D < 75\%$), or
- 3) Ready biodegradability and not bioaccumulating.

Adsorption/desorption can be tested according to OECD guidelines 106 or ISO CD 18749 "Water quality - Adsorption of substances on activated sludge - Batch test using specific analytical methods".

DID-list

The DID-list is common to the European ecolabel and Nordic Ecolabelling. The list has been established in collaboration with stakeholders from consumer organisations, environmental bodies and industry. The list contains information on the toxicity and degradability of substances that may be used in chemical 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 raw material supplier shall be used.

Nordic Ecolabelling
Dishwasher detergent 017/4
Date

The DID-list is available from the ecolabelling body in each country and their websites.

Valid for these criteria is the DID-list established in June 2004 or later.

Appendix 3 Declaration from the manufacturer of the dishwasher detergent

Product name: _____

Carcinogenic, mutagenic and reproduction toxic substances (CMR)

Does the product contain substances that carry one or a combination of the following risk phrases? **Yes** **No**

- R40 Possible risk of cancer
- R45 May cause cancer
- R46 May cause heritable genetic damage
- R49 May cause cancer by inhalation
- R60 May impair fertility
- R61 May cause harm to the unborn child
- R62 Possible risk of impaired fertility
- R63 Possible risk of harm to the unborn child
- R64 May cause harm to breastfed babies
- R68 Possible risks of irreversible effects (common for fragrances)

Allergenic substances

Does the product contain more than 0.1 wt% of any substance that carries one of the following risk phrases? **Yes** **No**

- R42 (May cause sensitization by inhalation)
- R43 (May cause sensitization by skin contact)
- R42/R43

Environmentally hazardous substances

Does the product contain any substance carrying one of the following risk phrases? **Yes** **No**

- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (common to fragrances)

Does the product contain any of the following substances? **Yes** **No**

- EDTA
- NTA
- DTPA
- Perborates
- Reactive chlorine compounds

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APEO
APD
LAS

Yes **No**

Are the colorants in the product approved according to
Annex IV of the cosmetics directive?

O20 Plastic packaging

Does the packaging (including label) contain PVC or other halogenated plastic?

Date

Signature (person responsible)

Company name
signature

Clarification of

Appendix 4 Declaration from the primary product supplier

Name of ingredient: _____

Carcinogenic, mutagenic and reproduction toxic substances (CMR)

Does the product contain substances that carry one or a combination of the following risk phrases? **Yes** **No**

- R40 Possible risk of cancer
- R45 May cause cancer
- R46 May cause heritable genetic damage
- R49 May cause cancer by inhalation
- R60 May impair fertility
- R61 May cause harm to the unborn child
- R62 Possible risk of impaired fertility
- R63 Possible risk of harm to the unborn child
- R64 May cause harm to breastfed babies
- R68 Possible risks of irreversible effects (common for fragrances)

Allergenic substances

Does the ingredient contain more than 0.1 wt% of any substance that carries one of the following risk phrases? **Yes** **No**

- R42 (May cause sensitization by inhalation)
- R43 (May cause sensitization by skin contact)
- R42/R43

Environmentally hazardous substances

Does the product contain any substance carrying one of the following risk phrases? **Yes** **No**

- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (common to fragrances)

Does the product contain any of the following substances? **Yes** **No**

- EDTA
- NTA
- DTPA
- Perborates
- Reactive chlorine compounds
- APEO

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Date

APD
LAS

Yes **No**

Are the colorants in the product approved according to
Annex IV of the cosmetics directive?

Date

Signature (person responsible)

Company name
signature

Clarification of

Appendix 5 Declaration from the fragrance manufacturer

Fragrance name: _____

Name of fragrance supplier: _____

IFRA

Yes No

Has the fragrance been added in accordance with IFRA guidelines. International Fragrance Association (IFRA) guidelines can be found on www.ifraorg.org/guidelines.asp .

Carcinogenic, mutagenic and reproduction toxic substances (CMR)

Does the product contain substances that carry one or a combination of the following risk phrases? **Yes No**

- R40 Possible risk of cancer
- R45 May cause cancer
- R46 May cause heritable genetic damage
- R49 May cause cancer by inhalation
- R60 May impair fertility
- R61 May cause harm to the unborn child
- R62 Possible risk of impaired fertility
- R63 Possible risk of harm to the unborn child
- R64 May cause harm to breastfed babies
- R68 Possible risks of irreversible effects (common for fragrances)

Allergenic substances

Does the fragrance contain more than 0.1 wt% of any substance that carries one of the following risk phrases? **Yes No**

- R42 (May cause sensitization by inhalation)
- R43 (May cause sensitization by skin contact)
- R42/R43

Does the fragrance contain any of the following substances? **Yes No**

If yes, specify the concentration in weight-% for detectable substances.

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		Weight- % in the fragranc e			Weight- % in the fragrance
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 salicylat	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-limonen	5989-27-5		Eugenol	97-53-0	
Farnesol	4602-84-0		Gerianol	106-24-1	
Hexyl cinnamal- dehyd	101-86-0		Hydroxycitronellal	107-75-5	
Hydroxymethyl- phenyl cyclohex- ene-carboxaldehyd (= Lyrál)	31906-04-4		Isoeugenol	97-54-1	
Liilal	80-54-6		Linalool	78-70-6	
Methyl heptine carbonate	111-12-6		Gamma-methyl ionone	127-51-5	
Evernia prunastri extracts	90028-68-5		Evernia furfuracea extracts	90028-67- 4	

Environmentally hazardous substances

Does the fragrance carry any of the following risk phrases? **Yes** **No**

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (common to fragrances)

Musk compounds

Have any of the following substances been added?		Yes	No
Musk xylene	81-15-2		
Musk ambrette	83-66-9		
Moskene	116-66-5		
Musk tibetine	145-39-1		
Musk ketone	81-14-1		
HHCB	114109-62-5, 114109-63-6, 1222-05-5, 78448-48-3 and 78448-49-4		
AHTN	1506-02-1 and 21145-77-7		

Date

Signature (person responsible)

Company name
signature

Clarification of

Appendix 6 Additives performance test

If performance is tested according to standard EN 50242 (1998 or later version) on electric dishwashers for household use, the following modifications shall be made:

- 1 Tests shall be performed at $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$, with a cold prewash without detergent.
- 2 The machine used for testing shall be a 12 place setting machine with 3.35-3.75 wash rating and connected to a cold-water supply
- 3 The machine's drying program shall be used but only the cleanliness of the dishes assessed.
- 4 A mildly acidic rinsing agent according to the standard (formulation III) shall be used.
- 5 The rinsing agent setting shall be set to 2 or 3.
- 6 The manufacturer's recommended dosage shall be used during testing.
- 7 Three trials shall be performed at the water hardness stated in the standard. One trial shall comprise five wash cycles with the results assessed after the fifth cycle without cleaning between cycles.

The results must be equal or better than the reference detergent after the fifth wash cycle.

For a recipe for the reference detergent (Detergent B IEC 436)* and rinsing agent (formulation III), refer to Annex B to standard EN 50242:1998.

* Surfactants shall be stored in watertight containers not larger than 1 kg and used within three months.

Appendix 7 Reference Detergent, Pass/Fail-level (IKW-test)

1. Reference Detergent

The IEC Reference Detergents Type B is the reference detergent for the IKW Performance test. The composition of the reference detergent is described below.

Table: Composition of IEC 436 Reference Detergents Type B

INGREDIENTS (IEC 436, Type B)	wt. %
Sodium-tripolyphosphate (STPP)	0
Tri-sodium-citrate-dihydrate	30,0
Sodium-carbonate	29,0
sodium perborate monohydrate	5,0
Tetraacetythylenediamine	2,0
Sodium-disilicate	25,0
Nonionic surfactant (low foaming)	2,0
Maleic acid/acrylic acid copolymer Na-salt	
Protease	6,0
Amylase	0,5
Sodium-dichloroisocyanurate	0,5
Sodium-metasilicate	0
Sodium-metasilicate-pentahydrate	0
	0
TOTAL WEIGHT	100

The Reference detergent may be obtained from:

wfk Testgewebe

c/o Mr Dr. Scherbaum

Christfeld 10, D-41379 Brüggen

Tel: +49-2157 72 41 fax: +49-215790657

2. Pass/Fail-level

The detergent under test should comply with the following requirements:

For each of the four soil classes of the IKW Test Method (bleachable, persistent/burnt, dried/starch containing, dried/protein containing), the performance of the tested detergent has at least to be as good as the reference detergent.

- Tested detergent pass performance test if:

the performance in all four soil classes is > reference detergent

- Tested detergent fail performance test if:

the performance in one or more soil classes is < reference detergent

Appendix 8 Example of framework test

The applicant's tests shall follow EN 50242 (1998 or later edition) or IKW.

There are a total of 8 types of soiling divided into four categories. At least one type of soiling must be selected from each category.

Bleachable stains

Tea

Persistent, burnt soil

Minced meat on glass dishes

Milk in the microwave

Amylase-specific soil

Starch mix

Porridge

Protease-specific soil

Egg yolk

Minced meat on porcelain plates

Egg/milk

EN50242 and the IKW test evaluate results in different ways:

The IKW test requires that the tested product is better than the reference detergent in all four categories

EN 50242 requires that the aggregate result of the tested product is better than the reference detergent.

The table below illustrates how evaluation shall be performed. The method depends on how many types of soiling are used and the number of washing cycles.

Type of soil	Wash cycles		Evaluation
All	3	⇒	Average
All	5	⇒	Average
One from each category	3	⇒	Best in each category
One from each	5	⇒	Average

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category			
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Appendix 9 Reference

Bra kemval för tvätt och rengöring version 2, 1998, Miljöförvaltningen
Göteborg/Stockholm vatten AB.

CHEMICALS SECTION 3, PART1: PRINCIPLES AND STRATEGIES
RELATED TO THE TESTING OF DEGRADATION OF ORGANIC
CHEMICALS

INTRODUCTION TO THE OECD GUIDELINES FOR TESTING OF
Swedish Chemicals Inspectorate, Sweden

KTF, Sweden

Licensees in Denmark, Finland, Norway and Sweden

Ecolabelling of dishwasher detergent, version 3.1

Stockholm vatten

Swan-labelling of hand dishwash detergents, version 3.0

Swan-labelling of laundry detergents and stain removers, version 5.1

Chemical Industry Federation of Finland