Consultative document

The Swan Labelling of Cleaning Products Background to ecolabelling

24 April 2007

Nordic Ecolabelling

The Swan Labelling of Cleaning Products – Background to ecolabelling

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1 Summary

This document discusses the criteria for the ecolabelling of cleaning products for consumers and professional users. ”Cleaning products” comprises the former product groups all-purpose cleaners and sanitary cleaning products. These product groups have many features in common and were accordingly amalgamated in the last revision.

The product group encompasses cleaning products intended for indoor, general and regular cleaning of

- fixed surfaces (floors, walls, ceilings, doors, tiles and windows)
- kitchen fixtures and fittings (for example tiles, work surfaces, kitchen machines, taps)
- bathrooms and toilets (toilet bowls, baths, showers, washbasins, taps)

The cleaning products may be in pre-diluted or concentrated (requiring dilution before use) form. The products may be intended for use by consumers and/or professional users. If the product is intended to be used by both consumers and professional users, it must fulfil the strictest requirement in each area of requirement.

The contents of cleaning products for fixed surfaces include surfactants, complexing agents, preservatives, dyestuffs and fragrance.

Cleaning products intended for use in bathrooms and toilets contain various chemical components such as surfactants, oxidising compounds, decalcifiers, alkalic compounds, disinfectants, preservatives, dyestuffs and fragrance.

The requirements focus on the environmental effects of cleaning products after use and at the time of emission into the waste processing system, because this is the stage at which ecolabelling can make a difference and at which the environment is assumed to suffer the greatest impact.

The criteria also impose health-related requirements. These take the form of the exclusion or restriction of, or the imposition of requirements on, certain substances and groups of substances.

Requirements are also imposed as to function, packaging, information for the customer and quality assurance.

This background document contains a description of environmental impact, an overview of the market and the background to the requirements imposed in the criteria document.

The main changes proposed in this consultative document relative to criteria version 3.0 are:

- the proscription of substances classified as the most environmentally harmful (R50/53) and of CMR substances (substances that can cause cancer, are mutagenic or toxic to reproduction)
- stricter requirements applicable to allergens
- the permitted quantity of substances classified as R51/53 and R52/53 has been reduced
- TD has been converted to CDV (the ”toxicity and degradability” of the product. This is now related to the European DID-list) and the limits have been made stricter

2 Relevance – Potential - Controllability

2.1 Relevance

Large quantities of cleaning products are used in the Nordic countries.

In terms of volume, surfactants are the dominant component.

Most surfactants are more or less toxic to aquatic organisms. The acute toxicity is probably caused by the surface-active properties of surfactants which disturb the transportation of substances (for example

oxygen) through biological membranes (for example fish gills). The biodegradability of surfactants varies depending on the form of the carbon chain (generally speaking, straight chains are more readily degradable than branched chains). Generally, toxicity increases in line with the length of the carbon chain. During biodegradation some surfactants may form intermediate products that are not readily broken down, that are toxic and that may dissolve in fat (for example alkylphenol ethoxylates). A number of surfactants are bioaccumulable.

Surfactants may contain carcinogens or substances that are suspected of being carcinogens, for example NTA and formaldehyde. Allergens such as preservatives and fragrances are common ingredients.

Cleaning products are normally released into the drainage system after use. This represents the greatest environmental impact of this product group. In most cases waste water is treated in municipal treatment facilities, most of which separate out the largest particles. Many of the treatment facilities remove phosphates by chemical precipitation. Biological processes are also used in some cases. In these cases a large proportion of the nitrates present in the waste water will also be removed. In Norway, approximately 75% of waste water is treated using one or more of the aforementioned technologies. In Finland, Sweden, Iceland and Denmark over 90% of waste water is treated. The waste water is then released into lakes, rivers and the ocean. This results in an impact on waterborne organisms in the form of oxygen depletion and the toxic effects of non-readily degradable compounds.

The substances removed from the waste water generally remain in the sludge in the treatment plant. This substance could be used in agriculture as a soil nutrient if documentation can be presented to show that the level of pollution is sufficiently low.

The other environmental effects of cleaning products are in the form of resource consumption and emissions during production of the ingredients and packaging as well as during transportation of the finished product. Spent packaging also represents a waste problem.

2.2 Potential

Various types of raw materials (surfactants, complexing agents, preservatives, dyestuffs, fragrances, oxidising compounds, decalcifiers, alkalic compounds, disinfectants etc.) have varying degrees of environmental impact and health effects. Requirements can accordingly be imposed in order to distinguish between products with different impacts on the environment.

Nordic Ecolabelling has identified a particular potential for improvement by proscribing substances classified as R50/R53 and increasing the stringency of the requirements applicable to toxic substances that are not readily degradable. This can be done with the aid of the requirements applicable to CDV.

2.3 Controllability

The retail sector is interested in selling ecolabelled products. The label communicates complex information to the buyer in a simple way.

Other criteria documents also reward companies for using Swan-labelled products, such as those applicable to cleaning services, hotels and restaurants. Moreover, environmental requirements are imposed by both private and public sector buyers.

3 Historical background

3.1 Versions and validity periods

Previously the criteria for cleaning products were divided into separate criteria documents for all-purpose cleaners and sanitary cleaning products.

All-purpose cleaners - Version 1 – 3 September 1993

Version 1 impose the requirements relating to harmfulnes for health and the environment, the ecotoxicological properties of surfactants and individual requirements applicable to various substances/groups of substances.

All-purpose cleaners – Version 2

The changes from version 1 (3 February 1995 – 27 June 2000) to version 2 (10 December 1998 – 9 June 2003) generally consisted of the introduction of an environmental matrix in which the requirements are interconnected, and an increase in the stringency of the function test.

Sanitary cleaning products – Version 1 – 26 August 1994

Version 1 imposed requirements as to harmfulnes on health and the environment, surfactants, complexing agents, disinfectants, preservatives, dyestuffs and fragrance. Requirements were also imposed with regard to the information text on dosage, requirements applicable to packaging and function, as well as individual requirements applicable to certain substances/groups of substances.

Sanitary cleaning products – Version 2

Between version 1 and version 2 (22 April 1999 – 24 February 2004) the changes generally consisted of the introduction of an environmental matrix (in which the requirements applicable to toxicity – degradability, phosphorus, NTA, non-potentially degradable substances, non-anaerobically degradable substances and the weight-to-utility ratio of the packaging are interconnected) and an increase in the stringency of the function test.

Cleaning products – Version 3 – 15 June 2003

The main changes in criteria version 3 relative to 2 were:

- the combination of the all-purpose cleaner and sanitary cleaning product documents
- a reduction of the maximum limit for substances with relatively high toxicity and low degradability
- the function test was made more flexible
- antibacterial products were excluded
- the product classification requirements were updated
- health-related requirements for fragrance (the proscription of carcinogens and mandatory declaration of allergenic ingredients)
- products that served only as decalcifying agents were no longer encompassed by the ecolabelling criteria

4 The Nordic market

Table 1 provides an overview of the allotment of licences for cleaning products. The figures are from March 2005. Please note that individual licences may encompass multiple products/trade names.

Table 1 Licences and registrations, split between consumer and professional products

	D	F	N	S
Number of licences – consumer products	7	7	8	21
Number of licences – professional products	52	3	0	13
Number of registrations – consumer products	0	7	13	5
Number of registrations – professional products	1	11	21	18

It is worth noting that only 1 (out of a total of 60) licences in Denmark is a registration – the rest are individual licences. In Norway, the opposite ratio applies: 34 registrations out of a total of 42.

The market share held by ecolabelled products ranges from 2 to 70%, depending on the type of product and market (consumer/professional product). In the case of consumer products the share is lowest in Denmark and highest in Sweden. In the case of professional products the proportion is far and away highest in Denmark.

The distribution of product types between the Nordic countries varies considerably. In Denmark, the proportion of products for the professional market is very high. In Finland and Sweden, the proportion of licenced/registered products for consumers and professionals are of approximately equal size. The consumer market is somewhat larger in Norway.

Table 2 Estimated sales and quantities

	D	F	N	S
Consumer products – in millions of Euro	16	20❷		
Professional products – in millions of Euro	7 ❶	17		
Consumer products – in thousandsof tons	9	13❸	8❹	15❺
Professional products – in thousands of tons	4,5❶			
Thousand tons of cleaning products in the Nordic countries (approximate figure)	50			

❶ Denmark (2004): Based on estimates. The figures for the professional industry are allocated according to area of use, and not product.

❷ Finland (2005): Also includes other types of cleaning products.

❸ Total consumption, estimated to be of same size as Denmark

❹ Norway: Estimated to be half the Swedish market

❺ Sweden: Aggregate figures for consumer and professional products

Other ecolabels

The EU-flower (strongest position in Denmark) and the Good Environmental Choice label, the Swedish Society for Nature Conservation's ecolabelling scheme, have also developed criteria for cleaning products.

5 About the revision process

The goal of the revision process

The evaluation of the current criteria (Version 3) concluded that:

- In order to retain the low level of ecolabelled WC cleaners (compared with others), the requirements as to toxicity-degradability should be made more stringent.
- In addition, steps should be taken to ensure that the positive low level of licences for professional sanitary cleaning products is upheld.
- The Working Group recommended that the same requirements should apply to sanitary cleaning products and all-purpose cleaners so that the range of requirements is changed to include "concentrated and pre-diluted products". Within these areas there might be a need for separate requirements for consumer products vis à vis professional products
- The requirements should be related to the DID-list.

Attention should also be focused on the following factors:

- fragrance (updating)
- consumer testing (improved level of detail)/laboratory testing
- procedure for application (simplification)
- refill and weight utility ratio (simplification)
- review of interpretations of the current criteria
- consider imposing requirements with regard to "new" ingredients such as enzymes etc.

The following people were involved in the revision process: Trine Pedersen (Miljømærkesekretariatet, Denmark), Hannu Mattila (SFS Miljömärkning, Finland), Ulf Eriksson (SIS Miljömärkning, Sweden) and Arne Godal (Project Manager, Stiftelsen Miljømerking i Norge). Aina Seland (Stiftelsen Miljømerking i Norge) acted as area coordinator.

6 Justification for the requirements

6.1 Description of the product

This section provides information on factors such as areas of use and intended market.

The product group encompasses cleaning products intended for indoor, general and regular cleaning of

- fixed surfaces (floors, walls, ceilings, doors, tiles and windows)
- kitchen fixtures and fittings (for example tiles, work surfaces, kitchen machines, taps)
- bathrooms and toilets (toilet bowls, baths, showers, washbasins, taps)

A cleaning product may be pre-diluted or concentrated (require dilution before use). Products may be aimed at both consumers and/professional users. The requirements applicable to environmental impact (CDV, aNBO and anNBO), are based on the following categories:

- Consumer pre-diluted (ready for use)
- Consumer concentrate (requires dilution before use)
- Professional pre-diluted
- Professional concentrated

If a product is intended for use both by consumers and professionals, it must fulfil the strictest requirements in each area of requirement.

Pre-diluted products are often used for stain removal in dry cleaning techniques on floors or when cleaning smaller surfaces.

6.2 Formulation

In order to ensure that the chemical requirements are fulfilled, applicants are requested to provide the following information on constituent substances in the formulation: DID number, chemical name, trade name, CAS number, ingoing quantities including water, quantity in pre-mixed product, including water, function and classification.

6.3 The DID-list

The DID-list is common to both the EU ecolabelling scheme and Nordic Ecolabelling. The list was compiled in cooperation with representatives of consumer and environmental organisations and the industry, and contains information on toxicity and degradability for a number of different substances that might occur in chemo-technical products. The substances on the DID-list do not show the substances contained in ecolabelled products.

The DID-list can not be used for the purpose of documenting the toxicity of individual substances in connection with the classification rules. Information contained in product safety data sheets, the literature or provided by raw material manufacturers must be used for this purpose.

The DID-list is available from Nordic Ecolabelling or via the websites of the individual countries. The DID-list adopted in June 2004 or later applies for the purpose of these criteria.

6.4 Classification of products

Nordic Ecolabelling's position is that the effects on health and the environment of the chemicals used in cleaning products should be as low as possible, at the same time as which it should be possible to produce effective products. The requirements applicable to the classification of the products are defined in such a way that products that are environmentally harmful, toxic, corrosive or harmful to health cannot be ecolabelled. Products labelled as irritants (Xi) may be ecolabelled only with risk phrases R36 (irritating to eyes), R37 (irritating to respiratory system) and R38 (irritating to skin).

Products intended for use by the professional market classified as irritants as R41 (risk of serious damage to the eyes) may also be ecolabelled. This because professional users have the experience and equipment required to handle such products safely.

CMR substances (carcinogenic, mutagenic and reprotoxic substances)

Substances that are carcinogenic, mutagenic or toxic for reproduction for humans are used in cleaning products. CMR substances can be replaced by other substances and are accordingly not permitted in ecolabelled products.

Allergenic substances

Substances classified as allergenic as R42 or R43 (May cause sensitisation by inhalation; may cause sensitisation by skin contact) must not be present in the product.

Allergies are an increasing problem and allergy sufferers may suffer allergic reactions if exposed to allergenic substances.

Enzymes are exempted from this requirement, as it has proved difficult to find non-allergenic enzymes. Fragrances too are exempted from the requirement, but are subject to separate requirements (see Fragrance).

Environmentally harmful substances

Substances that are non-readily degradable may cause problems both now in the future. The effects can be particularly serious if a substance is also acutely toxic. For this reason, substances with the risk phrases R 50/53 (very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment) are proscribed. Substances with the phrases R 51/53 (toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment) and R52/53 (harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment) are permitted in limited quantities. We have decided against imposing direct restrictions on substances that are very toxic to aquatic organisms (R50) since these may lead to more efficient products requiring lower chemical doses. Since degradability is a key element in the work of the Swan label, readily degradable substances will be preferred if, notwithstanding a high level of toxicity, they lead to products that are better in environmental terms. They are often directly reactive and are readily degradable. On the other hand, substances that are classified as R50 will be regulated through the CDV requirements.

Enzymes

In order to minimise the dust generated during dosing, the enzymes used must be encapsulated or mixed in a slurry. This requirement is imposed in order to reduce problems in the working environment associated with working with enzymes since substances of this nature are classified as R42 (may cause sensitisation by inhalation). Equivalent requirements are imposed in the criteria for textile detergents.

Surfactants

Surfactants are wash-active substances that make up a high proportion of the overall chemical content of these products. The rapid breaking down of surfactants is accordingly important in relation to the

environment in water and sludge. The requirement has imposed that all surfactants must be readily degradable, both in aerobic and in anaerobic environments.

We view all surfactants in cleaning products as wash-active, and accordingly the "exemption rule" relating to the determination of anaerobic degradability in Appendix 2.4 cannot applied.

Non-wash-active surfactants (for example foam inhibitors) are not normally used in this product group.

6.5 Substances that must not be present in the product

Chlorine – antibacterial substances

Reactive chlorine compounds such as sodium hypochloride or organic compounds containing chlorine (such as benzalconium chloride and triclosan) are used as disinfectant/antibacterial agents. They may be or may lead to the formation of toxic, non-readily degradable and bioaccumulative substances. They may also create resistance to bacteria, both to the biocide itself and to antibiotics. Since proper hygiene and cleaning can remove problematical bacteria, there is no need for cleaning products containing substances of this nature.

The criteria document also prohibits what are termed silver nanoparticles. This is meant as a preventative requirement since in other contexts silver nanoparticles have an antibacterial function – without any known consequences for the environment.

Alkylphenol ethoxylates

The use of alkylphenol etoxylates (APEO) is not permitted since the degradation products do not break down and are regarded as environmentally harmful. Moreover, certain APEOs (nonylphenol) have been reported by the EU to be the cause of endocrine disruption.

Alkylphenol derivatives

Alkylphenol derivatives (APD) are substances derived from APEO and are excluded because they are not degradable and are harmful to health.

Linear alkylbenzene sulphonates

Linear alkylbenzene sulphonates (LAS) are toxic to aquatic organisms and are not degradable in an anaerobic environment.

EDTA

EDTA (ethylenediaminetetraacetic acid and its salts) NTA (nitrilo-tri-acetic acid), DTPA and phosphonates are suspected of mobilising heavy metals in certain environments, since they may neutralise them. Moreover EDTA is not readily degradable. NTA is of medium to low toxicity to waterborne organisms. Varying results have been presented from degradability tests. During 2007 NTA will be classified as R40, on the DID-list it is readily degradable. For this reason neither of these substances is permitted. Phosphonates and DTPA have the same properties as EDTA.

Preservatives

Preservatives are added to prevent growth in the product. In order to limit the taking up into the food chain of substances of this nature, the requirement is imposed that they must not be bioaccumulable.

This requirement has been updated and corresponds to the requirement applicable to textile detergents.

Imposing the requirement that the preservative must have a logKow < 3.0 or BCF < 100 allows us to exclude some of the other critical preservatives such as butyl and isobutyl parabene and Triclosan.

Dyestuffs

Dyestuffs are generally added to products aimed at consumers for aesthetic reasons, whereas on the professional market they are used in order to help ensure proper use of the products. The criteria impose the requirement that the dyestuffs must be in compliance with the EU directive on foodstuffs legislation or that they are not bioaccumulable.

Requirements have been updated to reflect the requirements applicable to textile detergents. Approval of dyestuffs in accordance with the EU's cosmetics directive is no longer considered sufficient documentation since several of these dyestuffs are in fact environmentally harmful. Dyestuffs approved for use in food are assumed not to be environmentally harmful. Dyestuffs that are not bioaccumulable will not be taken up into the food chain and accordingly the hazard that they represent with respect to the environment will be limited.

Fragrance

Some fragrances are not readily degradable, are toxic, allergenic and bioaccumulable. Fragrance is frequently used in order to give products a "clean smell". Nordic Ecolabelling imposes the requirement that only fragrances approved in accordance with the International Fragrance Association's Code of Practice can be used. Fragrances are also regulated indirectly by the restrictions imposed on environmentally harmful substances and in the requirements applicable to CDV.

Unless gloves are used, fragrances in cleaning products will come into direct contact with the user's skin. The requirement is therefore imposed that known allergenic ingredients in the fragrance (the 26 encompassed by the Detergent Directive) and/or other constituent substances in the fragrance that are allergenic and classified as R42 and R43 may **either**

A) be present in a maximum quantity of 0.010 per cent by weight in the cleaning product **or B)** must be declared on the label if the concentration exceeds 0.0010 per cent by weight.

Fragrances are not a necessary ingredient in cleaning products. However, they seem to have a certain impact on sales, since consumers appear to prefer products with a fragrance. In order for an environmental gain to be achieved, consumers must be prepared to purchase ecolabelled products. Accordingly the use of fragrance in ecolabelled products is not prohibited.

(To the consultative bodies:

We will base our conclusion on whether the declaration option should be retained or removed on the basis of the responses received from the consultative bodies.)

Because of the cancer risk, fragrances intended for use in ecolabelled products must not contain certain nitromusk compounds.

Phosphorous

Overfertilisation is caused primarily by nitrogen and phosphorous. One consequence of overfertilisation is the depletion of oxygen in waterways, lakes and oceans, which in turn results in lifeless river, lake and sea beds. In Norway, national limitations on phosphorous apply. Phosphorus is regarded as a non-renewable resource.

We have not considered it appropriate to increase the stringency of the requirements applicable to phosphorus since phosphorus does not occur frequently in Swan-labelled cleaning products and where it does occur it is present in small quantities only. Cleaning products are not used in large quantities in households (that are not connected to sewage treatment facilities), and accordingly the environmental impact of phosphorous in this product group is minimal.

6.6 Definition of environmental parameters

CDV – the critical dilution volume of the product

CDV is a measure of the combined toxicity and degradability of the product and is calculated for each constituent substance in the environmental matrix. The requirement restricts the overall toxicity and quantity of substance that are non-readily degradable.

aNBO (aerobic degradability) and anNBO (anaerobic degradability)

Organic substances that are not readily degradable may in the future cause negative environmental effects unknown to us at present, even if they do not demonstrate acute toxic effects.

The toxic effects of organic substances that break down slowly continue over a longer period of time and involve a greater risk of harm to the environment. Rapid degradation under both aerobic and anaerobic conditions is accordingly preferable.

In many places large quantities of sewage sludge are simply dumped and not used for fertiliser because of the high content of toxic substances that do not break down sufficiently quickly.

Requirements are accordingly imposed on the quantity of substances that may be “non-readily degradable” and “non-anaerobically degradable”.

6.7 Effectiveness

The performance test requirement is first and foremost a quality requirement designed to ensure that a satisfactory wash result is achieved at the recommended dose of the ecolabelled product. The requirement is that the product must be as good as or better than a comparable product. Testing may be conducted at a laboratory or take the form of a consumer test. An additional objective of the efficiency testing is to ensure that inefficient products do not bear the Swan Label.

6.8 PACKAGING

Weight-utility ratio

The purpose of the requirements imposed with regard to the weight-utility ratio of packaging is to minimise the quantity of packaging and to increase recycling and reuse. This will result in a reduction in transport requirements and accordingly in energy consumption. Moreover, waste quantities will be reduced since concentrated products mean that less water is transported.

The requirement that the type of polymer used in plastic parts must be labelled allows packaging to be recycled. Neither the packaging nor the label may contain PVC or other types of chlorinated materials.

Recycling systems for packaging

This requirement is imposed in order to increase the recycling of packaging.

Consumer information

The requirements relating to consumer information are imposed in order to prevent incorrect dosage and to provide consumers with advice on cleaning. This helps to reduce emissions of chemicals.

6.9 The requirements of the authorities, eco and quality assurance

This requirement ensures that the holder of the ecolabelling licence is responsible for ensuring observance of safety and working environment regulations, environmental legislation and production-related conditions/licences in the production of ecolabelled products.

The requirement is imposed in order to secure observance of the requirements of the ecolabelling criteria throughout the period of validity of the licence.

Marketing

The requirement ensures that the marketing of ecolabelled products proceeds in accordance with "Rules on the Nordic Ecolabelling of Products", dated 12 December 2001.

6.10 Analyses and control

To ensure that sampling and testing is conducted in a competent and impartial way, enterprises performing the testing and the ecotoxicological test methods used are subject to certain requirements.

7 Changes in the consultative document compared to the current version No. 3

Stricter requirements regarding the documentation provided by raw materials suppliers

The requirements now go one step further back in the production chain to include suppliers of raw materials. All suppliers of raw materials are now required to complete and sign a multiple-choice form in which supplementary information on the constituent substances and properties of the raw materials is requested.

Simplification of the licence application process

As in the case of raw materials suppliers a multiple choice form has also been compiled for completion by the manufacturer. This will result in a reduction in the paper work required in connection with application.

Definition of ingoing substances and pollution

Definitions have now been drafted of "ingoing substances" and "pollution".

Ingoing substances are all substances contained in the product, including additives in ingredients (e.g. preservatives and stabilisers), but not pollutants deriving from raw material production. Pollutants are traces of raw material production occurring in the product in concentrations of less than 0.01%. Substances added to a raw material deliberately or for a purpose are not counted as pollutants, irrespective of concentration.

Requirements applicable to CMR substances

Substances classified as

- R40 Limited evidence of a carcinogenic effect
- 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 breast-fed babies
- R68 Possible risk of irreversible effects

must not be present in ecolabelled cleaning products.

Imposing the above requirements will stop the use of formaldehyde and formaldehyde separating preservatives such as bronopol.

Requirements applicable to enzymes

The requirement is imposed that enzymes must be in capsules or not generate dust. The major manufacturers already practise this procedure.

Requirements applicable to allergens

The product must not contain substances classified as allergenic as R42 or R43 (may cause sensitisation by inhalation; may cause sensitisation by skin contact). The requirement does not apply to enzymes. Separate requirements apply to fragrance.

Imposing the requirement that constituent substances must not be classified as R43 will preclude the use of substances such as MG (methyldibromoglutaronitrile) and kathon.

Requirements applicable to the constituent substances in fragrance

Fragrance is often said to be an important component of a cleaning product. This makes it even more important that allergenic components should not actively be added to the products.

Unless gloves are used the fragrance in a cleaning product will come into direct contact with the skin of the user. The requirement is therefore imposed that known allergenic ingredients in the fragrance (the 26 encompassed by the Detergent Directive) and/or other constituent substances in the fragrance that are allergenic and classified as R42 and R43 may **either**

A) be present in a maximum quantity of 0.010 per cent by weight in the cleaning product **or B)** must be declared on the label if the concentration exceeds 0.0010 per cent by weight.

(To the consultative bodies:

We will base our conclusion on whether the declaration option should be retained or removed on the basis of the responses received from the consultative bodies.)

This will limit the use of fragrances with primary ingredients that are allergenic.

Proscription of substances classified as the most environmentally harmful (R50/53)

Substances with poor degradability may cause environmental problems today or in the future. The effects might be particularly serious if the substances also have a high acute toxicity. Accordingly a general proscription applies to substances classified as R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The permitted quantity of substances classified as R51/53 and R52/53 has been reduced in the case of pre-diluted sanitary cleaning products.

In the previous version of the criteria the following requirements applied to all-purpose cleaners and sanitary cleaning products:

Classification of substances	Highest permitted weight
The total of R 50/53 + R 51/53 + R 52/53	Sanitary cleaning products: 0.15 % weight of the product All-purpose cleaners: 0.020 gram/litre in use solution

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

As has already been noted, R50/53 is no longer permitted. Instead the requirement applicable to the quantity of substance classified as R51/53+R52/53 now relates to pre-diluted and concentrated products:

Classification of substances	Requirement
The total of R 51/53 (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)	Pre-diluted products: Maximum permitted content in the products is 0.20 gram/litre of solution Concentrated products: Maximum permitted content in the products is 0.020 gram/litre of solution

This is a continuation of the process of amalgamating the previous criteria for all-purpose cleaners and sanitary cleaning products.

The requirement as to the total permitted quantity of chemicals per litre of solution has been removed for all-purpose cleaners

The current version for sanitary cleaning products contains no maximum limit on the content of chemicals per litre of solution – unlike the situation for all-purpose cleaners.

Nordic Ecolabelling permits both pre-diluted and concentrated products and the average levels in the current cleaning product licences range from approximately 130 gram/litre solution in the case of pre-diluted products to approximately 0.70 for concentrated products.

Concentrated products involve less transportation of water, whereas pre-diluted products reduce the danger of incorrect dosage and help ensure that the user will use only the quantity required for the cleaning task at hand (will not make up a full bucket of solution which is then disposed of in the sewage system).

In light of the above it is difficult to justify a single requirement for quantities of chemicals. The requirement has accordingly been removed.

Toxicity and degradability are related to the DID-list and the stringency of these requirements is increased

A common DID-list (Detergent Ingredient Database list) has been compiled in cooperation with the European ecolabelling scheme, the Flower. This will replace the Swan Label Chemical List. The DID-list contains information on the toxicity and degradability of a number of substances that might occur in chemo-technical products.

CDV (critical dilution volume) is generally equivalent to the GN value used at present. This factor indicates how many times a substance needs to be diluted in order to avoid an environmentally harmful effect.

aNBO: Equivalent to ILN. This factor indicates whether the substance breaks down in oxygen-rich environments (for example water).

anNBO: Equivalent to IAN. This factor indicates whether the substance breaks down in oxygen-free environments (for example sludge).

The requirements are no longer related to "all-purpose cleaners" and "sanitary cleaning products". Instead the requirements are divided up into the following categories:

- Consumer pre-diluted (ready for use)
- Consumer concentrated (requires dilution prior to use)
- Professional pre-diluted
- Professional concentrated

This is a natural continuation of the process of combining the formerly separate criteria for ecolabelling all-purpose cleaning products and sanitary cleaning products that started with the last revision.

A review of 67 licences in the four categories reveals that the level of environmental impact was relatively similar for all all-purpose cleaning products and sanitary cleaning products within the individual category.

However, the levels of the various environmental parameters vary considerably from category to category. As a consequence, the requirements applicable to the individual parameter are no longer linked together in a points-based environmental matrix. Instead the individual parameter in the individual category has been made so strict that only the best products will satisfy the requirements. This will mean that the requirements are more absolute and will accordingly be simpler to take into account during the development process. Furthermore, when the environmental benefits offered by one version of the criteria relative to another version are charted, it will be simpler to compare the levels of the individual environmental parameters than if relative points are used.

The stringency of the requirements for aNBO, anNBO and CDV in the consultative document will entail that a total of 25% of the products will need to be altered if their licences are to be renewed.

Silver nanoparticles proscribed

Silver nanoparticles are used as an antibacterial additive in products such as washing machines, clothes, refrigerators etc. Silver is known for its antibacterial effects. Because of their relatively large surfaces areas relative to their quantity, silver nanoparticles are far more effective. (www.azom.com/details.asp?ArticleID=3533).

This is a preventative requirement that has been imposed in order to stop the use of this type of compounds, the environmental effects of which are not yet known.

Phosphonates proscribed

As is the case for other complexing agents such as EDTA, phosphonates are not readily degradable. As is the case in other chemo-technical product groups, phosphonates are prohibited.

Dyestuffs approved for use in cosmetics are no longer automatically approved

A requirement has been updated in relation to the requirements applicable to textile detergents. Dyestuffs approved under the EU Cosmetics Directive are no longer permitted. since it transpires that several of these dyestuffs are in fact environmentally harmful. It is assumed that dyestuffs approved in food are not environmentally harmful. Dyestuffs that are not bioaccumulable will not be taken up into the food chain and accordingly their environmental harmfulness will be limited.

The framework conditions applicable to consumer tests have been made more precise

Based on experience of consumer tests conducted in accordance with the existing criteria, the framework conditions for this test have been made more detailed and clarified.

Laboratory test

Data for determining water (run before or at the same time as the testing of the product) should be enclosed in order to ensure that the method functions. No requirements will be imposed with regard to water.

8 New criteria

A plan for version 5 will be drafted on the basis of factors that include the responses received from the consultative bodies.

9 References

Licence holders in Denmark, Finland, Norway and Sweden

The ecolabelling of dishwasher detergents, version 3.1

The Swan-labelling of hand dishwash detergents, version 3.0

The Swan-labelling of laundry detergents, version 5.1

www.azom.com/details.

Good Environmental Choice

The Tox-Info Handbook