

# **Swan labelling of candles**

Draft for hearing 21 June – 7 September 2007

**Version XX • 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 websites:

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

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

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## What is a Swan-labelled candle?

According to Wikipedia a candle is a light source consisting of an internal wick which rises through the centre of a column of solid fuel. Typically the fuel is some form of wax, oil or fat (definition taken from <http://en.wikipedia.org/wiki/Candle>).

A Swan-labelled candle is a candle meeting specific criteria for environmental performance, health aspects, quality and safety.

## Why choose the Swan label?

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

## What can carry the Swan label?




All candles can carry the Swan label if they meet the criteria in this document. For instance this could be dinner candles (taper and slender candles), square candles (pillar or column candles), tea lights, graveyard candles, garden candles and candles for decoration. Candles made entirely from paraffin cannot receive the Swan label because the content of renewable resources shall be at least 90% of the candle, as specified under O3. Scented candles cannot receive the Swan label since criterion O12 prohibits fragrances due to the risk of allergy. Oil lamps are not regarded as candles and can therefore not receive the Swan label.

## How to apply

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

### **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 procedure in environmental and quality management system

### **Application**

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

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

### **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 other Nordic countries.
- Instruction manual in the local language.
- Documentation demonstrating the fulfilment of national regulations.

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

### **On-site inspection**

In connection with handling of the application, Nordic Ecolabelling performs an on-site inspection (at the production site) to ensure adherence to the requirements. For such an inspection data used for calculations, original copies of submitted certificates, test records, purchase statistics and similar documents that support the application must be available for examination.

### **Costs**

An application fee is charged to companies applying for a licence. There is an additional annual fee based on the turnover of the Swan labelled candles.

## Enquiries

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

# 1 Environmental requirements

## O1 Description of material

Materials in the candle must be described in terms of type, percentage and origin of stearin, paraffin, wax, oil, fat or other substances. Materials in the wick and the wick foot shall also be described. Wick type and number (batch number) shall be submitted with the application. Any other materials (for example cups/containers encircling the candle) sold as parts of the product also have to be described.

- Description of materials and their percentages in the candle from manufacturer. The manufacturer of the wick and wick foot shall also declare content of materials.

## O2 Description of chemical additives and coatings

Chemical additives in and coating the candle, including auxiliary chemicals, lacquers and dyes, shall be listed with the name, type and use of each additive. A product safety data sheets for each additive shall be attached to the application. Product safety data sheets shall comply with EU classification system 1999/45/EC with adaptations and amendments.

- List of additives and coatings (including all auxiliary chemicals, lacquers and dyes) and product safety data sheets including CAS numbers for all additives and coatings.

## O3 Amount of wax produced from renewable raw materials

The amount of wax in the candle produced from renewable raw materials<sup>1</sup> shall exceed 90% of the total weight of the candle. Animal oil from animals listed on the IUCN's Red list of Threatened Species must not be used.

- Description from the manufacturer of materials and their percentages in the candle.

## O4 Renewable raw materials

The licensee must ensure that wax from renewable raw materials (such as palm tree oil) do not originate from forest environments meriting protection due to their high biological and/or social value. Nordic Ecolabelling may revoke a licence if it is

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<sup>1</sup> Renewable raw materials are biological materials that are reproduced continuously in nature. This includes biodegradable fractions of products and vegetable and animal waste. It also includes remains from agriculture, sustainable forest management and similar industries, as well as biodegradable fractions of industrial and municipal waste. Animal oil from animals listed on the IUCN's Red List of Threatened Species is not regarded as a renewable raw material.

found that renewable raw materials are derived from forest environments of this type.

- Supplier details, name of plant (in Latin and one Nordic language) and geographic origin (country/state and region/province/municipality) of the kinds of plants used to produce the renewable raw material. Nordic Ecolabelling may request further documentation if there is any doubt as to whether the raw materials are derived from forest environments meriting protection due to their high biological and/or social value.

**O5** Soot index

The average value of the soot index from 3 tests (samples) shall be less than 1.0 per hour. No individual sample shall exceed 2.0 per hour. This is in accordance with the criterion in EN15493 section 4.6.

- Test report from a test laboratory showing that the requirement is met and that standard EN 15426 has been followed. The test laboratory must meet the criteria in Appendix 2. (Standard EN 15426 and EN 15493 is not yet approved. But we hope the proposals to be approved at the same time as this criteria document is approved by the Nordic Ecolabelling Board).

**O6** Chemicals, substances, preparations, additives, lacquers and dyes

The use of chemicals, substances, preparations, additives, lacquers and dyes containing more than 0.01% by weight of substances that are assigned or may be assigned at the time of application any of the following risk phrases (or combinations thereof) are prohibited:

- R40 (limited evidence of a carcinogenic effect),
- R42 (may cause sensitization by inhalation),
- R43 (may cause sensitization by skin contact),
- R45 (may cause cancer),
- R46 (may cause heritable genetic damage),
- R49 (may cause cancer by inhalation),
- R50/53 (very toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment),
- R51/53 (toxic to aquatic organisms; may cause long term adverse effects in the aquatic environment),
- R59 (dangerous to the ozone layer),
- 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),
- R68 (possible risk of irreversible effects),

As laid down in Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances and its subsequent amendments.

- Declaration from the licensee that the requirement is met.

**O7** Azo dyes

Azo dyes that may cleave to any one of the following aromatic amines shall not be used:

4-aminodiphenyl	(92-67-1)
Benzidine	(92-87-5)
4-chloro-o-toluidine	(95-69-2)
2-naphthylamine	(91-59-8)
o-amino-azotoluene	(97-56-3)
2-amino-4-nitrotoluene	(99-55-8)
p-chloroaniline	(106-47-8)
2,4-diaminoanisol	(615-05-4)
4,4'-diaminodiphenylmethane	(101-77-9)
3,3'-dichlorobenzidine	(91-94-1)
3,3'-dimethoxybenzidine	(119-90-4)
3,3'-dimethylbenzidine	(119-93-7)
3,3'-dimethyl-4,4'-diaminodiphenylmethane	(838-88-0)
p-cresidine	(120-71-8)
4,4'-methylene-bis-(2-chloraniline)	(101-14-4)
4,4'-oxydianiline	(101-80-4)
4,4'-thiodianiline	(139-65-1)
o-toluidine	(95-53-4)
2,4-diaminotoluene	(95-80-7)
2,4,5-trimethylaniline	(137-17-7)
4-aminoazobenzene	(60-09-3)
o-anisidine	(90-04-0)

The list is according to EU Directive 2002/61/EC.

Declaration from the licensee that the requirement is met.

**O8** Heavy metals

None of the following heavy metals must be actively used in the production of any part of the candle: Mercury (Hg), Lead (Pb), Cadmium (CA), Zink (Zn) , Copper (Cu), Nickel (Ni), Cobalt (Co), Antimony (Sb) and Chrome-6 (Cr-6). This requirement also covers the use of dyes, lacquers and other chemical products.

Declaration from the manufacturer of the dye, lacquer, wick, wax, oil or fat that the requirement is met.

**O9** Aromatic solvents

Aromatic solvents must not be used or actively added during the production of the candle. The exception is the possible paraffin fraction.

Declaration from the manufacturer of the dye, lacquer, wick, wax, oil or fat that the requirement is met.

**O10** Halogenated solvents

Halogenated solvents must not be used in the production of the candle.

Declaration from the manufacturer of the dye, lacquer, wick, wax, oil or fat that the requirement is met.

**O11** Total amount of organic solvents

The content of organic solvents must not exceed 1% by weight of the candle.

Alternatively, reference may be made to test results which show the Total Volatile Organic Compounds (TVOC) in the candle to be less than 1200 µg/m<sup>3</sup> of air measured in a test chamber for 24 hours and using gas chromatography/mass spectrometry (gc/ms).

*(Organic solvents are defined as organic compounds with a vapour pressure above 0.01 kPa at 293.12 K in accordance with the EU VOC directive)*

Declaration from the manufacturer of the wax, oil or fat that the requirement is met. Alternatively, test results which show that TVOC is less than 1200 µg/m<sup>3</sup> of air.

**O12** Fragrance

The candle must not contain any kind of fragrance or aroma.

Declaration from the manufacturer of the candle that the requirement is met.

**O13** Phthalates

The candle must not contain phthalates of any kind.

Declaration from the manufacturer of the candle that the requirement is met.

**O14** Other parts

All other parts like cups and containers encircling the candle and sold together with the candle shall be biodegradable. If this is not the case the parts shall be reusable or recyclable. Information to consumer about this aspect and where to discard the parts for reuse or recycling shall then be written clearly on the packaging.

Declaration from the manufacturer of the parts that the requirement is met.

**O15** Wick

The wick shall not contain any kind of metal.

Declaration from the manufacturer of the wick that the requirement is met.

**O16** Packaging

Packaging (including labels) containing PVC or other plastic containing chlorinated material must not be used. Single candle packaging is not allowed.

Declaration from the manufacturer of packaging that the requirement is met.

## 2 Other requirements

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

If the licensee's environmental management system is certified to ISO 14 001 or EMAS and the following procedures implemented, it is sufficient for the accredited auditor to certify that the requirements are observed.

### **O17** Legislation and regulations

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

**Nordic Ecolabelling may revoke the licence if the requirement is not fulfilled.**

- Declaration from the licensee that the requirement is met, and details of the regulatory authority.

### **O18** Swan licence administrator

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

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

### **O19** Documentation

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

- Checked on site.

### **O20** Planned changes

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

- Procedures detailing how planned changes are handled.

### **O21** Unplanned nonconformities

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

- Procedures detailing how unplanned nonconformities are handled.

**O22** Traceability

The licensee must have a traceability system for the production of the Swan-labelled candles.

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

**O23** Training

All employees and contractors that are part of daily operations must have the know-how to ensure fulfilment of Swan requirements.

- Procedures detailing how training is taking place.

**O24** Take-back system

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

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

**O25** Marketing

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

- Appendix 1 duly completed.

**O26** Fire safety

The licensee must follow the standard EN 15493 for fire safety. Standard EN 15493 is not yet approved. But we hope the proposal to be approved at the same time as this criteria document is approved by the Nordic Ecolabelling Board.

- Test report from a test laboratory showing that the standard EN 15493 has been followed. The test laboratory must meet the criteria in Appendix 2.

**O27** Product safety labels and warnings

**The licensee shall follow the standard EN 15494 for product safety labels and warnings. Safety information in Annex A, figure A1 and A4, shall also be followed even though this is optional supplementary safety information in the standard.** Standard EN 15494 is not yet approved. But we hope the proposal to be approved at the same time as this criteria document is approved by the Nordic Ecolabelling Board.

- Test report from a test laboratory showing that the standard EN 15494 has been followed. The test laboratory must meet the criteria in Appendix 2.

## Marketing

The Swan label is a very well-known and well-reputed trademark in the Nordic region. Swan-labelled products and services may be marketed using the Swan label so long as the associated licence is valid.

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

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

## Design of the Swan label

Design of the Swan label:



Licence number

Each licence has a unique six-figured 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" 12 December 2001 or later versions.

## Follow-up inspections

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

The licence may be revoked if it is evident that the license holder does not meet the requirements.

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

## How long is a licence valid?

Nordic Ecolabelling adopted the criteria for candles on DAY MONTH YEAR. The criteria are valid until DAY MONTH YEAR (dates will come later).

The ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be extended or adjusted, in which case the licence is automatically extended and the licensee informed.

Revised criteria shall be published by Nordic Ecolabelling at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

## Future Criteria

In future requirements Nordic Ecolabelling will among other things consider whether to:

- Increase the percentage of wax produced from renewable resources (see definition in criterion O3) from 90% to 95%.
- In version 3 of the criteria: increase the percentage of wax produced from renewable resources from 95% to 100%.
- Have a requirement to how packaging can support high transport efficiency when transporting candles.

## Appendix 1

### Marketing of Swan-labelled candles

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

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

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

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Date and place	Company
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Signature, contact person

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Clarification of name	Phone
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Signature, marketing director

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

## **Appendix 2**

### **Analysis and test laboratories**

#### **Requirements on the analysis laboratory**

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

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

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