Nordic Ecolabelling for

Textile services



Consultation draft

Version 4.0

Nordic Ecolabelling

Contents

What is a Nordic Swan Ecolabelled textile service? 4
Why choose the Nordic Swan Ecolabel? 4
What can carry the Nordic Swan Ecolabel? 4
How to apply? 5

1 Description of the service. 6
2 Energy, greenhouse gases and water 8
3 Laundry chemicals 13
4 Transport 23
5 Textiles and mats 24
6 Emissions and plastic waste 27
7 Quality control of laundries 28
8 Working conditions 29
9 Environmental management and regulatory requirements 30
10 Summary of points 31

Regulations for the Nordic Ecolabelling of services 32
Follow-up inspections 32
History of the criteria 32
New criteria 32

Appendix 1 Description of the service.
Appendix 2 Textile categories
Appendix 3 Dry cleaning contractor
Appendix 4 Energy and CO_2 factors for fuel and electricity
Appendix 5 Declaration from chemical product manufacturer
Appendix 6 Declaration from textile supplier on textile production

075 Textile services, version 4.0, consultation draft

Addresses

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

Denmark
Ecolabelling Denmark
Danish Standards Foundation
Göteborg Plads 1
DK-2150 Nordhavn
Tel: +45 72 300 450
info@ecolabel.dk
www.ecolabel.dk

Iceland
Ecolabelling
Iceland
Norræn Umhverfismerking á Íslandi
Suðurlandsbraut 24
IS-108 Reykjavik
Tel: +354 591 20 00
ust@ust.is
www.svanurinn.is

This document may only be copied in its entirety and without any type of change. It may be quoted from provided that Nordic Ecolabelling is stated as the source.

Finland
Ecolabelling Finland
Box 489
FI-00101 Helsinki
Tel: +358 9 61 22 50 00
joutsen@ecolabel.fi
www.ecolabel.fi

Norway
Ecolabelling Norway
Henrik Ibsens gate 20
NO-0255 Oslo
Tel: +47 24 14 46 00
info@svanemerket.no
www.svanemerket.no

Sweden
Ecolabelling Sweden
Box 38114
SE-100 64 Stockholm
Tel: +46 8 55 55 24 00
info@svanen.se
www.svanen.se

What is a Nordic Swan Ecolabelled textile service?

A Nordic Swan Ecolabelled textile service:

- Is energy efficient and has a low climate impact.
- Consumes limited amounts of water and uses the planet's resources sparingly.
- Its consumption of chemicals complies with stringent environmental and health requirements. For example, detergents do not contain optical brighteners, fragrances or DADMAC. Use of chemicals is limited.
- Reduces the environmental impact of transport involved in distribution.
- Buys in textiles at least 85% of which are ecolabelled or comply with the Oeko-Tex 100 standard.

Why choose the Nordic Swan Ecolabel?

- The laundry may use the Nordic Swan Ecolabel trademark for marketing. The Nordic Swan Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Swan Ecolabel is a simple way of communicating environmental work and commitment to customers.
- The Nordic Swan Ecolabel clarifies the most important environmental impacts and thus shows how a company can cut emissions, resource consumption and waste management.
- Environmentally suitable operations prepare textile services for future environmental legislation.
- Nordic Swan Ecolabelling can be seen as providing a business with guidance on the work of environmental improvements.
- The Nordic Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Swan Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Swan Ecolabel?

The product group includes all textile services. A chain/group with several units can apply for a licence for one or more units. Each unit must fulfil the requirements and have its own licence. If all the units in a chain/group in a country are Nordic Swan Ecolabelled, they can market themselves as a Nordic Swan Ecolabelled chain/group in that country.

For cloth hand towel rolls, either the whole laundry can be Nordic Swan Ecolabelled or only the part of the laundry that handles cloth hand towel rolls.

The criteria do not apply to companies that only offer dry cleaning. The criteria for alternative dry cleaning are available for these companies.

How to apply?

Application and costs

For information about the application process and fees for this product group, please refer to the respective national website. For addresses, see page 3.

What is required?

The application must consist of an application form/web form and documentation showing that the requirements are fulfilled.

The criteria for textile services comprise a combination of obligatory requirements and point score requirements. The letter "O" and a number indicate obligatory requirements. These requirements must always be fulfilled. 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.

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.

To be awarded a Nordic Swan Ecolabel licence:

- All obligatory requirements must be fulfilled.
- A minimum of 20 points must be achieved, see requirement O37.
- Nordic Ecolabelling must inspect the site.

All information submitted to Nordic Ecolabelling is treated confidentially. Suppliers can send documentation directly to Nordic Ecolabelling, and this will also be treated confidentially.

Licence validity

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

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

On-site inspection

In connection with handling of the application, 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, test records, purchase statistics, and similar documents that confirm compliance with the requirements must be available for examination.

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 3 for addresses. Further information and assistance (such as calculation sheets or electronic application help) may be available. Visit the relevant national website for further information.

1 Description of the service.

This section contains requirements that aim to describe the service and the distribution of laundry between different categories of textiles. The distribution of laundry is used as a basis for the requirements on consumption of energy, water and laundry chemicals.

O1 Description of the service.

The applicant must describe the service that is to be Nordic Swan Ecolabelled in line with Appendix 1. Any contractors, Nordic Swan Ecolabelled and non-Nordic Swan Ecolabelled, used for laundry and dry cleaning must also be stated here.

✉ Description of the service in line with Appendix 1.

O2 Distribution of laundry between different textile categories

The laundry must account for incoming laundry in kg on an annual basis in the different textile categories in Table 1. See Appendix 2 for a description of the textile categories.

The distribution of laundry between different textile categories is used as a basis for the requirement on use of energy, water and laundry chemicals. Only laundry delivered to the laundry should be counted, not relaundering. The number of kg must be based on weighing before laundering.

Table 1 Textile categories

Textile categories	Sub-categories	Kg
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	
	Kitchen textiles and towels	
	Coloured workwear and other textiles	
	Textiles for clean rooms	
2) Workwear for institutions/retail/service Shoes	White	
	Other	
3) Hotels	Hotel linen	
	Linen for holiday cottage accommodation	
4) Restaurants	White cloths	
	White napkins	
	Coloured cloths and other textiles	
5) Hospitals/nursing homes	Blood-stained textiles	
	Other textiles	
6) Duvets and pillows		
7) Mops and offshore mats		

8) Other mats		
9) Cloth hand towel rolls		
10) Industrial cloths		
11) Dry cleaning		
12) Private clothes from households/institutions	White	
	Other	
13) Other		
TOTAL		

✉ Distribution of incoming laundry in kg on an annual basis between the textile categories in Table 2.

✉ Data to substantiate the above distribution.

O3 Non Nordic Swan Ecolabelled contractors

The proportion of laundry carried out by contractors who are not Nordic Swan Ecolabelled must not exceed 1.0% by weight.

All non-Nordic Swan Ecolabelled contractors must document compliance with requirement O16 for all chemicals used in laundry for the Nordic Swan Ecolabelled customer (laundry).

✉ Documentation of the proportion of textiles (% by weight) laundered by non-Nordic Swan Ecolabelled contractors on an annual basis.

✉ List of laundry chemicals used by non-Nordic Swan Ecolabelled contractors. If these laundry chemicals are Nordic Swan Ecolabelled or already familiar to Nordic Ecolabelling and permitted for use in Nordic Swan Ecolabelled laundries, no further documentation is required. If this is not the case, documentation is needed under requirement O16.

O4 Dry cleaning

All chemicals used for dry cleaning must meet requirement O16 on constituent substances.

The amount and type of chemicals bought in for dry cleaning, and the amount of used chemicals delivered to approved recipients must be documented by confirmation from the chemicals supplier and the waste recipient.

For laundries where cleaning amounts to more than 1.0% by weight and less than 5.0% by weight of the amount of textiles (both internally and externally at potential contractors) no halogenated cleaning fluids (such as perchloroethylene) may be used.

For laundries with a proportion equal to or more than 5.0% by weight of the amount of textiles, only cleaning that complies with Nordic Ecolabelling's requirements for alternative textile cleaning may be used.

✉ Documentation under requirement O16 and safety data sheet for product in line with applicable European legislation (Annex II to REACH, Regulation 1907/2006/EC).

✉ The amount and type of chemicals bought in for dry cleaning, and the amount of used chemicals delivered to approved recipients must be documented by confirmation from the chemicals supplier and the waste recipient.

✉ The number of kg of textiles cleaned, internally in laundries and externally by contractors must be documented. For external cleaning, state the supplier and cleaning technology. Contractors must complete Appendix 3 or state the licence number. Additional documentation for cleaning is not necessary when using a Nordic Swan Ecolabelled dry cleaner.

P1 Dry cleaning

The following points are allocated to laundries that have less than 5.0% by weight of dry cleaning and use a Nordic Swan Ecolabelled alternative dry cleaner.

- 1 point if > 70% of the dry cleaned goods are treated by a Nordic Swan Ecolabelled alternative dry cleaner.
- 2 points if all of the dry cleaned goods are treated by a Nordic Swan Ecolabelled alternative dry cleaner.

✉ The sub-contractor's licence number and annual reporting in terms of the amount of dry cleaning (% by weight).

2 Energy, greenhouse gases and water

The requirements addressing energy, greenhouse gases and water are divided into seven requirements, five of which are compulsory and three of which are point score requirements. It is possible to accrue a total of 25 points on the requirements on energy, greenhouse gases and water.

O5 Sulphur content of fuel

Sulphur content of the fuel used by the laundry shall not exceed 0.05% sulphur by weight.

No documentation is required for natural gas, LPG, solid biofuel or other sources of energy for which it is generally accepted that the sulphur content will never exceed the threshold value.

✉ Documentation from the fuel supplier on the sulphur content of fuel.

O6 Energy

The amount of energy consumed (A_{energy}) at the laundry must be less than or equal to the threshold value of the laundry for energy (G_{energy}). The permitted energy use (F_{energy}) varies depending on the textile category, see Table 2. The laundry's G_{energy} and A_{energy} must be calculated on an annual basis.

If energy consumption for the following processes can be separated using metering equipment or relevant calculations, they can be excluded from the calculation of A_{energy}:

- Internal waste water treatment plant.
- 35% of energy consumption for VOC afterburners for laundries that launder industrial cloths.
- Internal dry cleaning of textiles.

Table 2 Factor values for energy consumption for different textile categories

Textile categories	Sub-categories	F_{energy} [kwh/kg*]
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	2.50
	Kitchen textiles and towels	
	Coloured workwear and other textiles	
	Textiles for clean rooms	
2) Workwear for institutions/retail/service Shoes	White	2.00
	Other	
3) Hotels	Hotel linen	1.40
	Linen for holiday cottage accommodation	1.70
4) Restaurants	White cloths	2.30
	White napkins	
	Coloured cloths and other textiles	
5) Hospitals/nursing homes	Blood-stained textiles	2.20
	Other textiles	
6) Duvets and pillows		2.55
7) Mops and offshore mats		0.75
8) Other mats		0.65
9) Cloth hand towel rolls		1.55
10) Industrial cloths		3.10
11) Dry cleaning		-
12) Private clothes from households/institutions	White	2.90
	Other	
13) Other		0.65

** No. kg textiles in each textile category is based on data given in requirement O2.*

Calculation of G_{energy} and A_{energy}:

$$G_{energy} = \sum \left[(Proportion)_i \cdot (F_{energy})_i \right]$$

$A_{energy} = 1.6 \cdot A_{el} + A_{fuel}$

G_{energy} = Threshold value for total energy in kWh/kg of laundry at the laundry

A_{energy} = Energy used in kWh/kg of laundry at the laundry

$(F_{energy})_i$ = Factor value for energy consumption in kWh/kg per textile category.

A_{fuel} = Fuel used in kWh/kg of laundry at the laundry

A_{el} = Electricity used in kWh/kg of laundry at the laundry

$(Proportion)_i$ = Proportion of a textile category i, which is attained when the annual quantity of laundry in the category is divided by the total annual amount of laundry.

☒ Calculation that shows that A_{energy} is less than or equal to G_{energy}.

✉ Data to substantiate the calculation.

P2 Energy

Points are awarded to laundries with a lower energy consumption than the levels specified in Table 3.

Table 3 Points for low energy consumption

Percentage A_{energy} of G_{energy}	Points
A_{energy} less than 50% of G_{energy}	10
A_{energy} less than 60% of G_{energy}	8
A_{energy} less than 70% of G_{energy}	6
A_{energy} less than 80% of G_{energy}	4
A_{energy} less than 90% of G_{energy}	2
A_{energy} less than 95% of G_{energy}	1

✉ Calculation showing the number of points scored in relation to Table 4.

O7 Greenhouse gas emissions

The amount of greenhouse gases (A_{GHG}) that the laundry releases must be less than or equal to the threshold value for the laundry's emissions of greenhouse gases (G_{GHG}). The emissions requirements vary for the different textile categories. Table 4 shows the factor values (F_{GHG}) that must be used for the respective textile category. The laundry's G_{GHG} and A_{GHG} must be calculated on an annual basis. The recalculation factors for energy are in Appendix 4.

If the laundry, using metering equipment or relevant calculations, can separate out the following consumption, it is not included in the calculation of A_{GHG}:

- Internal waste water treatment plant.
- 35% of energy consumption for VOC afterburners for laundries that launder industrial cloths.
- Internal dry cleaning of textiles.

Table 4 Factor values for greenhouse gas emissions for different textile categories

Textile categories	Sub-categories	F_{GHG}[gCO_2e/kg^*]
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	470
	Kitchen textiles and towels	
	Coloured workwear and other textiles	
	Textiles for clean rooms	
2) Workwear for institutions/retail/service Shoes	White	370
	Other	
3) Hotels	Hotel linen	250
	Linen for holiday cottage accommodation	315
4) Restaurants	White cloths	435
	White napkins	
	Coloured cloths and other textiles	

5) Hospitals/nursing homes	Blood-stained textiles	410
	Other textiles	
6) Duvets and pillows		485
7) Mops and offshore mats		135
8) Other mats		115
9) Cloth hand towel rolls		280
10) Industrial cloths		595
11) Dry cleaning		-
12) Private clothes from households/institutions	White	555
	Other	
13) Other		95

** No. kg textiles in each textile category is based on data given in requirement O2.*

Calculation of G_{GHG} and A_{GHG}:

$$G_{GHG} = \sum [(Proportion)_i \cdot (F_{GHG})_i]$$

A_{GHG} is calculated in line with Appendix 4.

$(F_{GHG})_i$ = Factor value for greenhouse gas emissions in g CO_2 equivalents/kg per textile category.

A_{GHG} = Amount of CO_2 equivalents from emissions from energy use in g/kg laundry at the laundry.

$(Proportion)_i$ = Proportion of a textile category i, which is attained when the annual quantity of laundry in the category is divided by the total annual amount of laundry.

G_{GHG} = Threshold value for total CO_2 equivalent emissions in g/kg laundry at the laundry.

✉ Calculation that shows that A_{GHG} is less than or equal to G_{GHG}.

P3 Greenhouse gas emissions

Points are awarded to laundries with lower greenhouse gas emissions than the levels specified in Table 5.

Table 5 Points for lower greenhouse gas emissions (g CO_2/kg textiles)

Percentage A_{GHG} of G_{GHG}	Points
A_{GHG} is less than 40% of G_{GHG}	10
A_{GHG} is less than 50% of G_{GHG}	8
A_{GHG} is less than 60% of G_{GHG}	6
A_{GHG} is less than 70% of G_{GHG}	4
A_{GHG} is less than 80% of G_{GHG}	2
A_{GHG} is less than 90% of G_{GHG}	1

✉ Calculation showing the number of points scored in relation to Table 7.

O8 Water consumption

The amount of water consumed (A_{water}) at the laundry must be less than or equal to the threshold value of the laundry for water (G_{water}). Water consumption varies for the different textile categories. Table 6 shows the factor values (F_{water}) that are to be used for each category. The laundry's $G_{water}$and A_{water} must be calculated on an annual basis.

Water consumption covers the laundry's total consumption of mains water and any water from its own well.

Table 6 Factor values for water consumption for different textile categories

Textile categories	Sub-categories	F_{water} [l/kg*]
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	19.5
	Kitchen textiles and towels	
	Coloured workwear and other textiles	
	Textiles for clean rooms	
2) Workwear for institutions/retail/service Shoes	White	16.5
	Other	
3) Hotels	Hotel linen	10.0
	Linen for holiday cottage accommodation	
4) Restaurants	White cloths	17.0
	White napkins	
	Coloured cloths and other textiles	
5) Hospitals/nursing homes	Blood-stained textiles	13.5
	Other textiles	
6) Duvets and pillows		24.0
7) Mops and offshore mats		7.0
8) Other mats		6.5
9) Cloth hand towel rolls		9.5
10) Industrial cloths		11.0
11) Dry cleaning		0.0
12) Private clothes from households/institutions	White	17.0
	Other	
13) Other		7.0

** No. kg textiles in each textile category is based on data given in requirement O2.*

Calculation of the laundry's A_{water} and G_{water}:

$$G_{water} = \sum [(Proportion)_i \cdot (F_{water})_i]$$

$(F_{water})_i$ = Factor value for water consumption in litres of water/kg laundry per textile category.

$(Proportion)_i$ = Proportion of a textile category i, which is attained when the annual quantity of laundry in the category is divided by the total annual amount of laundry.

G_{water} = Threshold value for total water consumption in l/kg of laundry at the laundry

A_{water} = Water used in litres/kg laundry at the laundry.

✉ Calculation to show that the requirement is fulfilled.

✉ Data to substantiate the calculation.

P4 Water consumption

Points are awarded to laundries with a lower water consumption than the requirement levels specified in Table 7.

Table 7 Points for low water consumption

Percentage A_{water} of G_{water}	Points
A_{water} is less than 50% of G_{water}	5
A_{water} is less than 60% of G_{water}	4
A_{water} is less than 70% of G_{water}	3
A_{water} is less than 80% of G_{water}	2
A_{water} is less than 90% of G_{water}	1

✉ Calculation showing the number of points scored in relation to Table 10.

3 Laundry chemicals

Laundry chemicals refers to all chemicals that come into contact with the textile before, during and after the process (for example impregnation, stain removers, textile dyes). For several of the chemicals requirements it may be relevant for Nordic Ecolabelling to receive documentation directly and in confidence from the chemicals supplier. In the light of this documentation, Nordic Ecolabelling will be able to give licensees feedback on whether or not the requirement is met.

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the chemical product. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements.

- Ingoing substances: all substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.
- Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the in the chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg) in the chemical product.

Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

O9 Classification of laundry chemicals

Laundry chemicals must not be classified as belonging to the hazard classes and hazard statements in Table 8.

Table 8 Classification of laundry chemicals

CLP Regulation 1272/2008		
Hazard class	**Category Code**	**Hazard statement**
Acute toxicity	Category 1–4	H300, H310, H330, H301, H311, H331, H312*, H332*
Specific target organ toxicity after single or repeated exposure	STOT SE category 1–2 STOT RE category 1–2	H370, H371, H372, H373**
Aspiration toxicity	Category 1	H304**
Sensitising** by inhalation or skin contact	Category 1/1A/1B	H334 and H317
Carcinogenicity	Category 1A/1B/2	H350, H351
Germ cell mutagenicity	Category 1A/1B/2	H340, H341
Reproductive toxicity	Category 1A/1B/2	H360, H361, H362

**An exemption applies to products where the classification is the result of the content of oxalic acid (CAS 144-62-7) or peracetic acid (CAS 79-21-0).*

*** Products where the classification is due to the content of enzymes and products for stain removal which are used directly on the stain before laundering are exempt.*

Please note that classification is the responsibility of the chemical manufacturer.

✉ Safety data sheet for product in line with applicable European legislation (Annex II to REACH, Regulation 1907/2006/EC).

✉ Completed and signed declaration from the chemical manufacturer (Appendix 5).

✉ For Nordic Swan Ecolabelled laundry chemicals: State only the product name and licence number.

O10 Classification of constituent substances in laundry chemicals

Constituent substances in laundry chemicals should not be classified in relation to the hazard classes and hazard statements stated in Table 9.

Table 9 Classification of constituent substances in laundry chemicals

CLP Regulation 1272/2008		
Hazard class	**Category Code**	**Hazard statement**
Sensitising by inhalation	Category 1, – only applies to spray products without a foam filter	H334
Carcinogenic	Category 1A/1B/2	H350 H350 H351*

Mutagenic	Category 1A/1B/2	H340 H340 H341
Reprotoxic	Category 1A/1B/2	H360 H360 H361

** NTA as a contaminant in complexing agents is exempted from the requirement, but subject to the limitation that the concentration in the raw materials must be below 0.2% by weight. and that the concentration in the end-product must be below 0.1% by weight.*

☒ Safety data sheet for product in line with applicable European legislation (Annex II to REACH, Regulation 1907/2006/EC).

☒ Declaration from the chemicals manufacturer (Appendix 5).

☒ For Nordic Swan Ecolabelled laundry chemicals: State only the product name and licence number.

O11 Content of substances harmful to the environment in laundry chemicals

The use of substances that are toxic to the aquatic environment and are not readily degradable in the aquatic environment (substances with the hazard statements H410, H411 and H412) is limited as follows:

$100 * A_{H410} + 10 * A_{H411} + A_{H412} \leq 1.3$ g/kg textiles, where

A_{H410} is the amount of substances with H410 used in g per kg textiles.

A_{H411} is the amount of substances with H411 used in g per kg textiles.

A_{H412} is the amount of substances with H412 used in g per kg textiles.

In other words, substances classified as H410 are weighted 100 times higher than H412.

Exemptions:

- Protease/subtilisin classified as Aquatic chronic 2 H411 is exempt from the requirement. Be aware that the product must also fulfil the requirement O9 on classification of the product.
- Surfactants that are readily degradable*, anaerobically degradable** and are classified with H412.
- Sodium hypochlorite, CAS no. 7681-52-9 and sodium dichloroisocyanurate, dihydrate, CAS no. 51580-86-0, that are classified as H410.
- Peracetic acid, CAS no. 79-21-0.

** Under the DID list (dated 2016 or later) or test method no. 301 A-F or no. 310 in OECD guidelines for testing of chemicals or other equivalent test methods.*

*** Under the DID list (dated 2016 or later) or ISO 11734, ECOTOC no. 28 (June 1988) or equivalent test methods where at least 60% degradability is attained under anaerobic conditions.*

☒ Summary of the laundry chemicals' content of H410, H411 and H412 classified compounds per kg textiles.

☒ Calculations showing that the requirement is fulfilled.

O12 Restriction of the total dilution volume of laundry chemicals (CDV – critical dilution volume).

For each textile category, Table 10 states factor values for the total critical dilution volume ($F_{CDVchronic}$) of laundry chemicals. Chronic values ($CDV_{chronic}$) are used in the calculation.

Because the substances break down during the laundry process, separate rules apply to three substances:

- Active chlorine, such as sodium hypochlorite – is not included in the calculation of CDV. The use of active chlorine is specifically restricted in requirement O13.
- Hydrogen peroxide (H_2O_2) – is not included in the calculation of CDV.
- Peracetic acid is included in the calculation as acetic acid.

Table 10 Factor values (F) for $CDV_{chronic}$ in different textile categories

Textile categories	Sub-categories	$F_{CDVchronic}$ [litre/kg*]
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	180 000
	Kitchen textiles and towels	
	Coloured workwear and other textiles	
	Textiles for clean rooms	
2) Workwear for institutions/retail/service Shoes	White	140 000
	Other	
3) Hotels	Hotel linen	60 000
	Linen for holiday cottage accommodation	70 000
4) Restaurants	White cloths	100 000
	White napkins	
	Coloured cloths and other textiles	
5) Hospitals/nursing homes	Blood-stained textiles	100 000
	Other textiles	
6) Duvets and pillows		60 000
7) Mops and offshore mats		100 000
8) Other mats		60 000
9) Cloth hand towel rolls		60 000
10) Industrial cloths		160 000
11) Dry cleaning		-
12) Private clothes from households/institutions	White	140 000
	Other	
13) Other		60 000

** No. kg textiles in each textile category is based on data given in requirement O2.*

Calculation of critical dilution volume ($CDV_{chronic}$):

$$G_{CDV} = \sum [(Proportion)_i \cdot (F_{CDV})_i]$$

Requirements for CDV: $A_{CDV} \leq G_{CDV}$

G_{CDV} = The threshold value for the critical dilution volume of chemicals consumption calculated in litres per kg of textiles delivered. It is the weighted average of factor values that provides the threshold value for a laundry.

$(Proportion)_i$ = Proportion of a textile category i, which is attained when the annual quantity of laundry in the textile category i (excluding relaundering) is divided by the total annual amount of laundry per year (excluding relaundering).

$(F_{CDV})_i$ = The factor value for CDV in litres per kg textiles for the individual textile category i.

A_{CDV} = The critical dilution volume for the chemicals used in the laundry in litres per kg textiles.

Documentation must primarily refer to the DID list dated 2016 or later. For substances that are not covered by the list or where there is no data on the list, other documentation, e.g. test repots or literature references may be used.

CDV is calculated using the formula below. CDV is calculated for all substances in the individual laundry chemical and for all laundry chemicals covered by the requirement.

$CDV_{chronic} = \sum CDV_i = \sum (dose_i \text{ x } DFi \text{ x } 1000 / TF_{chronic})$, where

$dose_i$ = the input amount of the individual substance in g/kg textiles

DF_i = degradation factor for substance i

$TF_{chronic}$ = chronic toxicity factor

✉ Calculation of G_{CDV} and A_{CDV}, showing that the requirement is fulfilled. In conjunction with the calculation, a complete recipe (trade name, chemical name, amount, CAS number and DID number for each ingredient in the product) must be given for all products.

P5 CDV values

Laundries have an opportunity to score points if the following CDV values are attained.

Table 11 Critical dilution volume, CDV – points

Percentage A_{CDV} of G_{CDV}	Points
A_{CDV} is less than 30% of G_{CDV}	5
A_{CDV} is less than 40% of G_{CDV}	4
A_{CDV} is less than 50% of G_{CDV}	3
A_{CDV} is less than 60% of G_{CDV}	2
A_{CDV} is less than 70% of G_{CDV}	1

✉ Calculation of attained % A_{CDV} of G_{CDV}, showing how many points are attained. See also O12.

O13 Restriction on the chlorine content of laundry chemicals

For each textile category, Table 12 states factor values for the chlorine content of laundry chemicals ($F_{chlorine}$).

Table 12 Factor values (F) for Chlorine in different textile categories

Textile categories	Sub-categories	$F_{chlorine}$ [mg/kg*]
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	1,500
	Kitchen textiles and towels	1,845
	Coloured workwear and other textiles	0
	Textiles for clean rooms	300
2) Workwear for institutions/retail/service Shoes	White	150
	Other	0
3) Hotels	Hotel linen	115
	Linen for holiday cottage accommodation	
4) Restaurants	White cloths	265
	White napkins	1,500
	Coloured cloths and other textiles	0
5) Hospitals/nursing homes	Blood-stained textiles	1,725
	Other textiles	115
6) Duvets and pillows		0
7) Mops and offshore mats		0
8) Other mats		0
9) Cloth hand towel rolls		20
10) Industrial cloths		0
11) Dry cleaning		0
12) Private clothes from households/institutions	White	150
	Other	0
13) Other		0

** No. kg textiles in each textile category is based on data given in requirement O2.*

Chlorine calculation:

$$G_{chlorine} = \sum [(Proportion)_i \cdot (F_{chlorine})_i]$$

Requirements for chlorine: $A_{chlorine} \leq G_{chlorine}$

$G_{chlorine}$ = The threshold value for the consumption of active chlorine at a laundry measured in mg active chlorine per kg textiles delivered. It is the weighted average of factor values that provides the threshold value for a laundry.

$(Proportion)_i$ = Proportion of a textile category i, which is attained when the annual quantity of laundry in the textile category i (excluding relaundering) is divided by the total annual amount of laundry per year (excluding relaundering).

$(F_{chlorine})_i$ = The factor value for active chlorine in litres per kg textiles for the individual textile category i.

$A_{chlorine}$ = The used amount of active chlorine at the laundry in mg per kg textiles.

✉ Calculation of $G_{chlorine}$ and $A_{chlorine}$, showing that the requirement is fulfilled.

P6 Low consumption of chlorine

Laundries can earn points from low use of chlorine as stated in Table 13 below.

The number of points depends on the proportion of textiles where chlorine is often used (in other words a high factor value for chlorine, $F_{chlorine}$, and on relatively low chlorine consumption, $A_{chlorine}$, in relation to this.

Table 13 Chlorine consumption and points scored

Percentage $A_{chorine}$: ($A_{chlorine}$ /$G_{chlorine}$) * 100%	**Threshold value for chlorine, $G_{chlorine}$**			
	$0 \leq G_{chlorine} \leq 20$	$20 \leq G_{chlorine} \leq 65$	$65 \leq G_{chlorine} \leq 330$	$G_{chlorine} > 330$
$A_{chlorine}$ is less than 50% of $G_{chlorine}$ or no chlorine consumption	2 points	5 points	8 points	10 points
$A_{chlorine}$is less than 60% of $G_{chlorine}$	1 point	4 points	6 points	8 points
$A_{chlorine}$is less than 70% of $G_{chlorine}$	1 point	3 points	5 points	6 points
$A_{chlorine}$is less than 80% of $G_{chlorine}$	0 points	2 points	3 points	4 points
$A_{chlorine}$is less than 90% of $G_{chlorine}$	0 points	1 point	2 points	2 points

✉ Calculation of % that $A_{chlorine}$ constitutes of $G_{chlorine}$, showing the number of points scored. See also O13.

O14 Restriction on the content of non-anaerobically degradable substances in laundry chemicals

For each textile category, Table 14 states factor values for the content of non-anaerobically degradable substances in laundry chemicals (F_{anNBO}).

Table 14 Factor values (F) non-anaerobically degradable substances (anNBO) in different textile categories

Textile categories	**Sub-categories**	**F_{anNBO} [g/kg*]**
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	White workwear, e.g. from the food industry, etc.	1.75
	Kitchen textiles and towels	
	Coloured workwear and other textiles	
	Textiles for clean rooms	
2) Workwear for institutions/retail/service Shoes	White	1.25
	Other	
3) Hotels	Hotel linen	0.60
	Linen for holiday cottage accommodation	

4) Restaurants	White cloths	1.10
	White napkins	
	Coloured cloths and other textiles	
5) Hospitals/nursing homes	Blood-stained textiles	1.00
	Other textiles	
6) Duvets and pillows		0.60
7) Mops and offshore mats		1.00
8) Other mats		0.75
9) Cloth hand towel rolls		0.60
10) Industrial cloths		1.50
11) Dry cleaning		0.00
12) Private clothes from households/institutions	White	1.25
	Other	
13) Other		0.60

** No. kg textiles in each textile category is based on data given in requirement O2.*

Calculation of substances that are not anaerobically degradable (anNBO):

$$G_{anNBO} = \sum [(Proportion)_i \cdot (F_{anNBO})_i]$$

Requirements for anNBO: $A_{anNBO} \leq G_{anNBO}$

G_{anNBO} = The threshold value for the consumption of substances that are not anaerobically degradable, at a laundry measured in g anNBO per kg textiles delivered. It is the weighted average of factor values that provides the threshold value for a laundry.

$(F_{anNBO})_i$ = The factor value in g-anNBO per kg textiles for the individual textile category i.

A_{anNBO} = The amount of anNBO used in the laundry in g anNBO per kg textiles.

Iminodisuccinate can be exempted from the calculation of anNBO.

Documentation of anaerobic degradability must primarily refer to the DID list dated 2016 or later. For substances that are not covered by the list or where there is no data on the list, other documentation, e.g. test repots or literature references may be used.

Substances that are not surfactants can be exempted from the requirement on anaerobic degradability if any of the following three alternatives are met:

- Readily degradable and low adsorption (A < 25%) or
- Readily degradable and high adsorption (D > 25%) or
- Readily degradable and not bioaccumulative.

Tests for adsorption/desorbtion can be carried out under OECD Guidelines 106 or ISO CD 18749 ”Water quality – Adsorption of substance activated sludge”.

✉ Calculation of G_{anNBO} and A_{anNBO}, showing that the requirement is fulfilled.

O15 Wash-active surfactants, ready degradability aerobically and anaerobically

All wash-active surfactants must be readily aerobically degradable under test method 301 A-F in OECD guidelines for testing of chemicals or other equivalent test methods.

All wash-active surfactants must be anaerobically degradable, which means at least 60% degradability under anaerobic conditions under ISO 11734, ECETOC no 28 or equivalent test methods.

Documentation must primarily refer to the DID list dated 2016 or later. For surfactants that are not covered by the list or where the data on the DID list is deficient, other documentation, e.g. test reports or literature references may be used.

✉ Reference to the DID list dated 2016 or later. For surfactants that are not covered by the list or where the data on the DID list is deficient, other documentation, e.g. test repots or literature references may be used.

✉ For Nordic Swan Ecolabelled laundry chemicals: State only the product name and licence number.

O16 Substances that must not be included in the laundry chemical

The laundry chemical may not contain the following substances:

- Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)
- LAS (linear alkylbenzene sulphonates)
- (DADMAC) Diallyldimethylammonium chloride
- Fluorine surfactants and other per- and polyfluorinated compounds (PFC)*
- Boric acid and borates
- Optical brighteners
- Fragrance
- Triclosan
- EDTA (Ethylene diamine tetraacetate) and its salts
- Phosphates
- Substances that have been evaluated in the EU as being PBT (persistent, bioaccumulative and toxic substances) or vPvB (very persistent and very bioaccumulative) in Annex XIII of REACH and substances that are not yet evaluated but which meet these criteria.
- Substances considered to be potential endocrine disruptors in category 1 or 2 under official EU lists. The EU's report on endocrine disruptors can be read in its entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (annex L, page 238 onwards)

- Substances on the Candidate list http://echa.europa.eu/candidate-list-table
- Halogenated flame retardants
- Nanomaterials/particles**

** Impregnation agents for personal clothing are exempt. PFOS and/or PFOA are prohibited in all applications, however.*

***Nanomaterials/particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011, "A natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions are in the size range of 1–100 nm." Examples are ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.*

✉ Declaration from chemicals manufacturer showing that the requirement is fulfilled (completed Appendix 5).

✉ For Nordic Swan Ecolabelled laundry chemicals: State only the product name and licence number.

O17 Proportion of ecolabelled laundry chemicals

A minimum of 30% by weight of laundry chemicals must be ecolabelled on an annual basis.

An ecolabelled laundry chemical is marked with the Nordic Swan Ecolabel, the EU Ecolabel or Bra Miljöval.

Two alternative calculations can be used here:

a) For groups, the calculations can be done at group level, or calculations can be by laundry (as in alternative b).

b) For individual laundries, textile detergents based on peracetic acid, chlorine, hydrogen peroxide and alkalis can be exempt from the calculations.

✉ Calculation with a summary of the product name, type of label, licence number/statement of the duration of the licence and amount on an annual basis.

Alternative a): State data for all chemicals for each laundry. Based on this a total calculation is produced for the group.

Alternative b): State data for all chemicals but only produce calculations for the chemicals that are not exempt from requirements.

P7 Points for ecolabelled laundry detergents

Use of ecolabelled laundry detergents for professional use, score points as stated in Table 15.

Table 15 Potential points for ecolabelled laundry detergents

Proportion of laundry detergents labelled with the Nordic Swan Ecolabel, the EU Ecolabel and/or Bra Miljöval	Points
90% by weight or higher	8
70% by weight or higher	6
50% by weight or higher	4
30% by weight or higher	2
10% by weight or higher	1

✉ Calculation with a summary of the product name, type of label, licence number and amount on an annual basis.

4 Transport

This chapter contains requirements on transport, internal and external, of textiles to and from customers.

O18 Training in eco-driving

All drivers who transport textiles between the Nordic Swan Ecolabelled laundry and the customer must have completed a course in eco/economic driving run by an external/competent course provider. Newly employed drivers must complete the course within 12 months of employment.

For external transporters the requirement applies from the point when the laundry enters into a new contract with an external transporter.

✉ Procedure to ensure training of own drivers.

🔑 Confirmation from an external/competent course provider that drivers (own and external) have attended a course in eco/economical driving.

✉ Procedure to ensure that external transporters fulfil the Nordic Swan Ecolabel's requirements on entering into new contracts.

🔑 For external transporters, a copy of contracts must be made available to Nordic Ecolabelling on request.

O19 Requirements for vehicles

a) Newly purchased and newly leased vehicles for transporting textiles must fulfil the latest applicable Euro emissions standard at the date of purchase. This applies from the date of applying for a Nordic Swan Ecolabel licence.

Newly produced vehicles will always comply with the most recent applicable Euro emissions standard.

The requirement does not apply to electric vehicles and other types of vehicle where there is no Euro emissions standard.

b) No vehicles used to transport textiles between the Nordic Swan Ecolabelled laundry and customers must be more than ten years old – calculated from the first date of registration – or must alternatively comply with the most recent applicable Euro emissions standard.

For external transporters, the requirement applies from the point when the laundry enters into a new contract with an external transporter.

✉ Purchasing procedure that ensures that the requirements are met.

🔑 Documentation of compliance with the requirement on individual new purchases/new leasings must be available for Nordic Ecolabelling on request.

✉ Summary of the total fleet with registration numbers and first date of registration. For vehicles more than ten years old, documentation of compliance with the most recent applicable Euro emissions standard must be appended.

✉ Procedure to ensure that external transporters fulfil the Nordic Swan Ecolabel's requirements on entering into new contracts.

🔑 For external transporters, a copy of contracts – and a summary of the vehicles the transporter uses for driving for the Nordic Swan Ecolabelled laundry must be available to Nordic Ecolabelling on request.

P8 Transport – Nordic Swan Ecolabelled fuel

Points are scored for the use of Nordic Swan Ecolabelled fuel in line with Table 16.

Table 16 Nordic Swan Ecolabelled fuel

Percentage Nordic Swan Ecolabelled fuel	Points
Nordic Swan Ecolabelled fuel constitutes more than 15% of fuel consumption for distribution	3
Nordic Swan Ecolabelled fuel constitutes more than 10% of fuel consumption for distribution	2
Nordic Swan Ecolabelled fuel constitutes more than 5% of fuel consumption for distribution	1

✉ State the type and amount of fuel used for transporting textiles.

5 Textiles and mats

This section contains requirements that is related to textiles, mats and disposal.

O20 Code of Conduct

The business must have a Code of Conduct for purchasing textiles that ensures that the supplier and the textile producer respect and comply with the 10 principles of the UN Global Compact*.

Alternatively, the business' Code of Conduct may be based on the ILO's eight core conventions, which cover:

- A ban on child labour (Convention 138 on the minimum working age and Convention 182 prohibiting the worst forms of child labour)
- Freedom of association (Convention 87 on freedom of association and Convention 98 on the right to organise)
- A ban on discrimination (Convention 100 on equal remuneration and Convention 111 on discrimination in respect of employment and occupation)

- A ban on forced labour (Convention 29 prohibiting forced and penal labour and Convention 105 abolishing forced labour)

** The UN Global Compact is 10 principles that cover human rights, labour rights, the environment and anticorruption. Read more at http://www.unglobalcompact.org/*

If the licensee or the supplier breaches the business' Code of Conduct, the Nordic Swan Ecolabel licence can be revoked.

✉ Copy of the Code of Conduct in line with the requirement.

✉ Description of how the business' Code of Conduct is conveyed to the supplier and how the compliance of the supplier and the textile producer is checked.

O21 Purchasing sustainable textiles

A Nordic Swan Ecolabelled textile service must live up to the following requirements on an annual basis

$$\frac{(\text{amount}_{\text{ecolabelled}} \bullet 5) + \text{amount}_{\text{Oeko-Tex 100}}}{\text{amount}_{\text{workwear}} + \text{amount}_{\text{flat goods}}} \geq 85\%$$

where

$\text{amount}_{\text{ecolabelled}}$ is the purchased amount of all ecolabelled textile products

$\text{amount}_{\text{Oeko-Tex100}}$ is the purchased amount of all non-ecolabelled textile products that meet the Oeko-Tex 100 standard

$\text{amount}_{\text{workwear}}$ is the purchased amount of workwear

$\text{amount}_{\text{flat goods}}$ is the purchased amount of flat goods that needs to be mangled (bed linen, tablecloths, cloth hand towel rolls, etc.)

Ecolabelled textiles means Nordic Swan Ecolabel, EU Ecolabel, Bra Miljöval (if both Class 1 and 2) and GOTS.

The calculation can be carried out either based on weight or by economic purchasing volume.

The requirement can be documented and complied with by a chain/group.

✉ Summary of purchased textiles with associated calculation showing that the requirement is fulfilled. The summary may be based on annual reports from the individual suppliers on their proportion of ecolabelled textiles and non-ecolabelled textiles that meet the Oeko-Tex standard. Nordic Ecolabelling will carry out spot checks on selected suppliers to confirm this data.

🔑 At the spot check, the supplier must be able to produce documentation for the report and a valid ecolabel certificate/documentation of compliance with the Oeko-Tex100 standard for the products that Nordic Ecolabelling selects for spot checks.

P9 Ecolabelled textiles

Points are awarded to laundries that buy in a large proportion of ecolabelled textiles in line with Table 17. The percentage of ecolabelled textiles is calculated using the formula

$$\frac{\text{amount}_{\text{ecolabelled}}}{\text{amount}_{\text{workwear}} + \text{amount}_{\text{flat goods}}} * 100$$

where

$\text{amount}_{\text{ecolabelled}}$ is the purchased amount of all ecolabelled textile products

$\text{amount}_{\text{workwear}}$ is the purchased amount of workwear

$\text{amount}_{\text{flat goods}}$ is the purchased amount of flat goods that needs to be mangled (bed linen, tablecloths, cloth hand towel rolls, etc.)

Ecolabelled textiles means Nordic Swan Ecolabel, EU Ecolabel, Bra Miljöval Class 1 and 2 and GOTS.

The calculation can be carried out either based on weight or by economic purchasing volume.

The requirement can be documented and complied with by a chain/group.

Table 17 Points for purchase of ecolabelled textiles

Proportion of ecolabelled textiles	Points
More than 50%	8
More than 40%	6
More than 30%	4
More than 20%	2
More than 10%	1

✉ Calculation showing the number of points scored in relation to Table 23.

O22 Ban on phthalate plasticisers

Mats brought new must not contain phthalate plasticisers.

✉ Procedures that ensure that mats brought new do not contain phthalate plasticisers.

✉ Certificate from the supplier of mats that mats delivered to Nordic Ecolabelled laundries do not contain phthalate plasticisers.

O23 Disposal

The laundry must report the weight of textiles and mats disposed of on an annual basis per category below. State which type of textiles and mats are usually disposed of in each category.

- Reuse
- Material recovery
- Energy recovery/incineration

- Landfill
- Other (specify)

The requirement refers to the textiles and mats that the laundry itself owns.

✉ Reporting in line with the requirement.

P10 Disposal green initiatives

Points are given for measures/initiatives in the first three steps in the EU's waste hierarchy; preventive, reuse and material recovery, as below.

- Measures that prevent disposal arising score 1 point. A maximum of 2 points can be achieved. Examples of measures that score points are microchips in the textiles in a laundry category and repairing textiles and mats locally at the laundry. Other measures can be accepted as decided by Nordic Ecolabelling.
- If at least 50% of the textiles and mats disposed of go for reuse or material recovery in line with requirement O23, 3 points are scored.
- If at least 30% of the textiles disposed of go for reuse or material recovery in line with requirement O23, 3 points are scored.

The requirement can be documented and complied with by a chain/group.

✉ Description and justification of measures/initiatives as above.

✉ Reporting according to requirement O23.

6 Emissions and plastic waste

This section contains obligatory requirements for water discharges and plastic take-back and a point score requirement concerning textile production of synthetic textiles and emissions of microplastics in waste water.

O24 Water discharge

Water discharge from the laundry must comply with all requirements and conditions imposed by municipal and regional authorities. This covers conditions linked to permits or approval of running the business and orders and other decisions from environmental agencies concerned.

If more than 5% by weight of the laundry consists of industrial cloths, the waste water must be treated before it is discharged into the municipal drainage system. The sludge from the laundry's water treatment plant must be treated as environmentally hazardous waste and its treatment must be approved by the country's environmental authorities.

✉ Documentation to show that the plant meets any requirements from the authorities. Alternatively documentation to show that there are no requirements governing the laundry's discharge of waste water.

✉ Laundries that wash industrial cloths must state which laws/regulations apply and how these are complied with. Documentation of procedures for treating

waste water before discharge into municipal drainage systems and handling of sludge.

P11 Information on textile production and reducing emissions of microplastics in waste water

Laundries that actively focus on microplastics by having their largest supplier of synthetic/mixed textiles answer questions on the synthetic materials included and their production – in line with Appendix 6: 3 points.

Laundries that have installed treatment technology that removes the majority of emissions of synthetic textile residues/microplastics in waste water: 5 points.

✉ Declaration from the supplier (Appendix 6).

✉ Confirmation from the supplier of the treatment system on installation and treatment effectiveness regarding synthetic residues/microplastics from laundering textiles.

O25 Plastic take-back

The laundry must offer customers the opportunity to return plastic waste. The laundry must ensure that the plastic is sent for recirculation.

✉ Confirmation that the laundry offers customers the opportunity to return the laundry's plastic waste.

✉ Copy of the laundry's certificate of membership of a take-back system or other documentation of the take-back system in which the producer and/or importer is a member.

7 Quality control of laundries

This section contains requirements for quality control of laundries.

O26 Quality control

The laundry must fulfil and comply with the quality and health and safety requirements imposed by the national laundry association or the national quality body for laundries.

Alternatively the laundry can instead choose one of the following options:

- Fulfil the requirements of RAL GZ-992 (Professional Linen Care – Quality Assurance) except the requirements on sorting.
- Be certified in accordance with ISO 9001 (Quality management systems – Requirements) and EN 14065 (Textiles – Laundry processed textiles – Biocontamination control system) in which specific demands are made regarding bacterological and visual purity.

Laundries in countries that do not have a national quality body can have quality control carried out by a quality body in one of the other Nordic countries.

✉ Copy of report on quality control carried out by an external and impartial inspector showing that the requirements are met.

✉ If relevant: Additional documentation for laundries that supply hospitals.

8 Working conditions

This chapter contains requirements on working conditions for own employees and contractors/employment agencies.

O27 Working conditions

The laundry's own employees must be guaranteed pay (including special services), working hours and other working conditions that are not less favourable than those agreed by the labour market partners for equivalent work in the sector concerned. Such conditions are often agreed through a collective agreement entered into by the representative labour market partners in the country in question and apply to the sector in the whole country (natural geographical sphere of influence for employees in the country).

✉ Documentation of membership of an employers' organisation, copy of an agreement with a union or a copy of an agreement between the applicant and employees relating to the requirement.

O28 Contractors/recruitment companies

Contractors/recruitment companies who provide labour must fulfil the following requirements:

- The work must be carried out by the contractor's own staff. The contractor cannot hire another sub-contractor.
- The contractor must be registered for VAT and employer payments and (in Finland) be registered for preliminary taxation – "förskottsuppbörd/ennakkoperintä".
- The business must not owe tax or charges or be in arrears.
- The laundry's own employees must be guaranteed pay (including special services), working hours and other working conditions that are not less favourable than those agreed by the labour market partners for equivalent work in the sector concerned. Such conditions are often agreed through a collective agreement entered into by the representative labour market partners in the country in question and apply to the sector in the whole country (natural geographical sphere of influence for employees in the country).

✉ Confirmation that the work is only carried out by the sub-contractor's staff.

✉ Copy of documentation from the tax authorities confirming VAT and employer registration.

✉ Copy of documentation from the tax authorities confirming that no tax or charges are owed.

✉ Documentation of membership of an employers' organisation, copy of an agreement with a union or a copy of an agreement between the applicant and employees relating to the requirement.

9 Environmental management and regulatory requirements

To ensure that the Nordic Ecolabelling requirements are met, a documented management system must be in place, and it must include the following implemented procedures.

If the laundry has a quality system that is certified to ISO 9001, or an environmental management system certified under ISO 14 001 or EMAS, and the following procedures are applied, it is sufficient for the certification body's auditor to certify compliance with the requirements.

O29 Organisation and responsibility

An organisational chart must be drawn up. Responsibility and authority for central environmental functions must be defined. The company shall appoint individuals who are responsible for ensuring the fulfilment of the Nordic Ecolabelling requirements, for marketing and for finance, as well as a contact person for communications with Nordic Ecolabelling.

✉ Copy of organisational chart.

O30 Documentation

The licensee must archive the documentation that is sent in with the application. All the documents regarding the licence must be easily available on the premises of the licensee. This includes documents on internal checks and measurement reports, for example. The contact person for communication with Nordic Ecolabelling is responsible for ensuring that the documentation is updated and available.

🔑 Checked on site as necessary.

O31 Purchasing

Procedures ensuring that environmental requirements will be fulfilled when purchasing goods and services shall exist.

- Concrete, daily purchasing procedures shall detail first-choice options and prohibited alternatives. If it is necessary to deviate from this procedure, a purchasing manager shall decide on the matter.
- General principles shall exist for goods and services that are purchased infrequently. A purchasing manager shall decide on environmental matters regarding such goods and services.

✉ Copy of all procedures for purchasing.

O32 Changes and nonconformities

Nordic Ecolabelling must be informed of/approve planned changes in products and markets that have a bearing on the Nordic Ecolabelling requirements. Unplanned nonconformities that have a bearing on Nordic Ecolabelling requirements must be reported to Nordic Ecolabelling in writing and journalled.

✉ Copy of the procedure for changes and unplanned nonconformities.

O33 Training

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

Employees must receive regular training in general environmental matters and in particular specific to their field of work.

Participation in training shall be documented. Contractors shall participate in the laundry's training or certify that they have received equivalent training.

✉ Copy of the procedure for training of employees and contractors.

O34 Customer information

Customers must be informed that they are using a Nordic Swan Ecolabelled laundry and what this means.

✉ Copy of the customer information procedure.

O35 Legislation and regulations

The business must ensure compliance with the applicable legislation regarding the working environment, the external environment, finances, hygiene and health. The business must not have any form of negative criticism from an authority or agency which has not been rectified within the deadline set by the supervisory authority or agency. If this requirement is not met, Nordic Ecolabelling may revoke the licence.

✉ Duly signed application form.

O36 Annual follow-up

The laundry must ensure that the criteria in the requirements are met on an ongoing basis. At least once a year (within 6 months of closing the books) a review of operations shall be made.

Nordic Ecolabelling may request reports from the internal audit and inspect a selection of requirements or all of them. The laundry will be notified of the inspection in advance.

✉ Licence follow-up procedure.

10 Summary of points

O37 Obligatory requirement re. points scored

The laundry must score at least 20 points.

The table below summarises the point score requirements and how many points can be earned for each requirement.

Table 18 Points total

Point score requirements	Points achieved	Maximum number of points
P1 Dry cleaning		2
P2 Energy		10
P3 Greenhouse gas emissions		10
P4 Water consumption		5
P5 CDV values		5
P6 Low consumption of chlorine		10
P7 Ecolabelled laundry detergents		8
P8 Transport – ecolabelled fuel		3
P9 Ecolabelled textiles		8
P10 Disposal green initiatives		5
P11 Information on textile production and reducing discharges of microplastics in waste water		8
Total		**74**

✉ Summary of points in line with the table above.

Regulations for the Nordic Ecolabelling of services

To easily identify Nordic Swan Ecolabelled services, the licence number and a descriptive sub text shall always accompany the Nordic Swan Ecolabel.

The descriptive text for 075 Textile services is: **Textile services**

For more information on rules, fees and graphical guidelines, see www.svanen.se/regelverk/

Follow-up inspections

Nordic Ecolabelling may check that the laundry continues to meet the Nordic Swan Ecolabel requirements after a licence has been granted. This may involve a site visit, random sampling or similar test.

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

History of the criteria

Nordic Ecolabelling adopted version 4.0 of the criteria for textile services on 14 March 2018. The criteria are valid until 31 March 2023.

New criteria

Points will be added on the areas that it may be relevant to focus on in the future after the review.

Appendix 1 Description of the service.

State any contractors, Nordic Swan Ecolabelled and non-Nordic Swan Ecolabelled, used for laundry and dry cleaning:

Describe the premises as below.

- No. of square metres:
- Owner of the premises:
- Does the laundry share the building with other companies?
- Can the laundry's total consumption of electricity, water and fuel be specified through regular, internal readings or only via the supplier?

Describe the machinery and the laundry process as below.

- Describe the machinery and whether laundry chemicals are dosed manually or via automatic dosing systems:
- Describe the boiler, the type of fuel used and how this fuels the laundry process:
- Describe any saving systems such as heat exchangers or other types of recovery system (e.g. heat exchanger/recirculation of water):

Describe new installations and changes carried out in the past 12 months:

Describe planned changes and when these are due to be completed:

Other information:

Appendix 2 Textile categories

Textile categories	Description
1) Workwear for industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and towels)	Workwear from mechanical industry, the offshore industry, the food industry, the pharmaceutical industry, military clothing and bags for outdoor use and workwear for butchers, chefs, etc. Textiles for clean rooms from the following sectors, for example: Pharmaceuticals, medical equipment, biotechnology, microelectronics and optics. All workwear worn in clean rooms must be placed in this category , although it actually belongs to the textile category Workwear for institutions/retail/service (2). Kitchen cloths, floor cloths, kitchen workwear, kitchen towels and similar from restaurants and caterers. These textiles are often severely soiled and may be hard to get clean.
2) Workwear for institutions/retail/service Shoes	Workwear from service companies, shops, hotels, hospitals, care homes and other institutions. Military clothing for indoor use. Shoes, especially for industrial use, that are sent for laundering. This usually involves workwear that is less severely soiled than the previous category.
3) Hotels	The sub-category Hotel linen includes bed linen and towels from hotels, guest houses and similar. These textiles have not been used much before they are washed and are thus lightly soiled. The sub-category Linen for holiday cottage accommodation includes bed linen and towels from holiday cottages and similar. These textiles are used for about one to two weeks and are considerably more soiled than traditional hotel linen.
4) Restaurants	Tablecloths, napkins and similar from restaurants and caterers. These textiles often have a medium degree of soiling and stains may occur that require relaundering.
5) Hospitals/nursing homes	Textiles such as bedlinen, mattress toppers, surgery textiles, barrier sheets and patient clothing from hospitals, care homes and similar institutions. Staff workwear and duvets and cushions do not belong to this category of textiles. Here there is greater variation in terms of the degree of soiling but on average the soiling is medium.
6) Duvets and pillows	Duvets, pillows, sleeping bags and mattress rolls from hospitals, care homes, hotels, holiday accommodation and similar. These textiles often have a large volume per kg, which results in a lower filling proportion. It is also hard to get the water out of these textiles before drying, which involves greater energy consumption for the tumble dryers.
7) Offshore mats and mops	Mats and cleaning mops used in the offshore industry. These are often severely soiled, but do not need to be completely clean. They are often impregnated after laundering to increase resistance to dirt.
8) Other mats	Entrance mats and similar used to bind dirt and water, and cleaning mops. The mats and mops are usually severely soiled, but do not need to be completely clean. They are often impregnated after laundering to increase resistance to dirt.
9) Cloth hand towel rolls	Cotton cloth hand towel rolls for toilets, etc.
10) Industrial cloths	Textiles used for wiping in the graphics and mechanical industry, among others. These textiles are often severely stained with ink, oil, metal shavings, etc.
11) Dry cleaning	All textiles that are dry cleaned internally or externally, including private clothing. This often involves fragile materials that cannot withstand washing with water.
12) Private clothes from households/institutions	Clothes from private individuals who hire a company to do their laundry.
13) Other	Textiles that do not belong to any of the above categories and as a rule form a lesser proportion of the laundry's volume of laundry.

Appendix 3 Dry cleaning contractor

Company name:

We supply dry cleaning to the laundry:

We hereby confirm that we:

- will send in a new declaration in the event of planned changes,
- will contact the ecolabelled laundry that we supply and Nordic Ecolabelling in the event of unpredicted deviations
- as a supplier to a Nordic Swan Ecolabelled laundry we may be inspected by Nordic Ecolabelling,
- may not use the Nordic Swan Ecolabel in our marketing without ourselves obtaining a licence.

We handle approximately _____kg textiles per year for the above laundry.

The following chemicals are used in dry cleaning for the above laundry:

Trade name of product	**Chemical name**	**Amount (kg or litres)/year**

Solvent waste management:

Waste company	**Type of chemical**	**Amount (kg or litres)/year**

Place and date	Company name/stamp
Responsible person	Signature of responsible individual
Telephone	E-mail

Appendix 4 Energy and CO_2 factors for fuel and electricity

Fuel	Energy factor	Unit	CO_2 factor	Unit
Natural gas	11.00*	kWh/m^3-N	205.0	g/kWh
Fuel oil	11.29*	kWh/kg	267.3	g/kWh
LPG	12.78*	kWh/kg	234.4	g/kWh
Petroleum coke	8.72*	kWh/kg	360.0	g/kWh
Coke	8.14*	kWh/kg	370.8	g/kWh
Straw	4.03*	kWh/kg	0	g/kWh
Pellets	4.86*	kWh/kg	0	g/kWh
Wood waste	4.08*	kWh/kg	0	g/kWh
Wood chips	0.78*	kWh/dm^3 wood chip volume	0	g/kWh
Biogas	6.39*	kWh/m^3	0	g/kWh
District heating	1.1***	kWh/kWh	227***	g/kWh
Electricity	1.6	kWh/kWh	115**	g/kWh supplied

** If the fuel supplier can provide more specific data, this can be used instead. Documented component of biogas in natural gas can be drawn on when calculating CO_2.*

*** The factor is based on all electricity being supplied via the electricity grid. For self-generated electricity from renewable energy sources, the factor can be halved to 57.5 g/kWh.*

**** Energy and CO_2 factors from the local district heating network can be used in the calculation.*

If data from the supplier is unavailable, the following standard density factors can be used:

Natural gas: 0.85 kg/m^3n

Light fuel oil: 0.89 kg/litre

Heavy fuel oil: 0.98 kg/litre

Data from the supplier (lower fuel value) can be used for fuel that is not included in the table.

Appendix 5 Declaration from chemical product manufacturer

This declaration is based on the knowledge we have at the time of the application, based on tests and/or declarations from raw material manufacturers, with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Product name: _____

Product function: _____

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the chemical product. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements.

- Ingoing substances: all substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.
- Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the in the chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg) in the chemical product.

Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

O9: Classification of laundry chemicals

Is the laundry chemical classified according to the table below? ☐ Ja ☐ Nej

If yes, which classification? _____

CLP Regulation 1272/2008		
Hazard class	**Category Code**	**Hazard statement**
Acute toxicity	Category 1–4	H300, H310, H330, H301, H311, H331, H312*, H332*
Specific target organ toxicity after single or repeated exposure	STOT SE category 1–2 STOT RE category 1–2	H370, H371, H372, H373**
Aspiration toxicity	Category 1	H304**

Sensitising** by inhalation or skin contact	Category 1/1A/1B	H334 and H317
Carcinogenicity	Category 1A/1B/2	H350, H351
Germ cell mutagenicity	Category 1A/1B/2	H340, H341
Reproductive toxicity	Category 1A/1B/2	H360, H361, H362

**An exemption applies to products where the classification is the result of the content of oxalic acid (CAS 144-62-7) or peracetic acid (CAS 79-21-0).*

*** Products where the classification is due to the content of enzymes and products for stain removal which are used directly on the stain before laundering are exempt.*

O10: Classification of constituent substances in laundry chemicals

Does the product contain substances classified with any of the hazard statements below?

H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1/1A/B	Yes	☐	No	☐
H350 – May cause cancer, hazard category 1A and 1B	Yes	☐	No	☐
H351 – Suspected of causing cancer, hazard category 2	Yes	☐	No	☐
H340 – May cause genetic defects, hazard category 1A and 1B	Yes	☐	No	☐
H341 – Suspected of causing genetic defects, hazard category 2	Yes	☐	No	☐
H360 – Reprotoxicity, hazard category 1A and 1B	Yes	☐	No	☐
H361 – Reprotoxicity, hazard category 2	Yes	☐	No	☐

O11: Content of substances harmful to the environment in laundry chemicals

Does the product contain any substances classified as harmful to the environment with the following hazard statements or combinations of them?

H410 (R50/53) – Aquatic Chronic 1	Yes	☐	No	☐
H411 (R51/53) – Aquatic Chronic 2	Yes	☐	No	☐
H412 (R52/53) – Aquatic Chronic 3	Yes	☐	No	☐

O16: Substances that must not be included in the laundry chemical

Does the product contain any of the following substances?

Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)	Yes	☐	No	☐
LAS (linear alkylbenzene sulphonates)	Yes	☐	No	☐
(DADMAC) Diallyldimethylammonium chloride	Yes	☐	No	☐
Fluorine surfactants and other per- and polyfluorinated compounds (PFC)*	Yes	☐	No	☐
Boric acid and borates	Yes	☐	No	☐
Optical brighteners	Yes	☐	No	☐
Fragrance	Yes	☐	No	☐
Triclosan	Yes	☐	No	☐
EDTA (Ethylene diamine tetraacetate) and its salts	Yes	☐	No	☐
Phosphates	Yes	☐	No	☐
Substances that have been evaluated in the EU as being PBT (persistent, bioaccumulative and toxic substances) or vPvB (very persistent and very bioaccumulative) in Annex XIII of REACH and substances that are not yet evaluated but which meet these criteria.	Yes	☐	No	☐
Substances considered to be potential endocrine disruptors in category 1 or 2 under	Yes	☐	No	☐

official EU lists. The EU's report on endocrine disruptors can be read in its entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (annex L, page 238 onwards)				
Substances on the Candidate list http://echa.europa.eu/candidate-list-table	Yes	☐	No	☐
Halogenated flame retardants	Yes	☐	No	☐
Nanomaterials/particles**	Yes	☐	No	☐

** Impregnation agents for personal clothing are exempt. PFOS and/or PFOA are prohibited in all applications, however.*

***Nanomaterials/particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011, "A natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions are in the size range of 1–100 nm." Examples are ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.*

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg/kg). If nanoparticles are included, state which type of particle. Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

In the event of any change to the composition of the product, a new declaration of fulfilment of the requirements is to be submitted to Nordic Ecolabelling.

Place and date	Company name/stamp
Responsible person	Signature of responsible individual
Telephone	E-mail

Appendix 6 Declaration from textile supplier on textile production

Based on information from the supplier's textile producers: State which synthetic materials are included in the different textile categories delivered, and intervals for the proportion (% by weight) in which the synthetic materials are contained.

Textile category	Synthetic materials	% by weight (from to)
Workwear industrial/kitchen/butchering and equivalent use Kitchen textiles (cloths and hand towels)	Polyester ☐ Nylon ☐ Other (state) ☐ _____	---------- ---------- ----------
Workwear, institution/retail/service	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Hotels - bed linen - towels	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Restaurant	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Hospital/Care home - bed linen - towels	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Mops	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Mats	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Fabric hand towel rolls	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
	Polyester ☐ Nylon ☐ Other (state) ☐ _____	
Other:	Polyester ☐ Nylon ☐ Other (state) ☐ _____	

The EU-based Mermaids project has identified different critical parameters that have a major impact on the release of plastic microfibres in the laundry process.

Which of the following parameters has the producer assessed in designing the synthetic fibre material (check the box):

- Fiber length: the shorter the fibers, the higher the probability to migrate to the yarn surface and increasing their hairiness and their pilling. As a consequence increasing their release during the laundry process.

Has assessed ☐ with the following conclusion: _____
_____
Has not assessed☐ but will assess this by:_____
Has not and will not assess this ☐ because:_____

- Yarn twist: the yarn resistance and elasticity increase with the twist. More compact yarns are achieved with higher twist values.

Has assessed ☐ with the following conclusion: _____
_____
Has not assessed ☐ but will assess this by:_____
Has not and will not assess this ☐ because:_____

- Linear density (yarn count): The number of microfibers released will increase with the yarn count due to a larger amount of fibers per cross section.

Has assessed ☐ with the following conclusion: _____
_____
Has not assessed ☐ but will assess this by:_____
Has not and will not assess this ☐ because:_____

- Fabric density: a higher number of yarns per unit length will result in a tighter structure with lower probability to fiber release.

Has assessed ☐ with the following conclusion: _____
_____
Has not assessed ☐ but will assess this by:_____
Has not and will not assess this ☐ because:_____

- Textile auxiliaries: provide physical protection of fibers against abrasion/reduction of coefficient of friction (fiber-fiber, fiber-detergent) during laundry.

Has assessed ☐ with the following conclusion: _____
_____
Has not assessed ☐ but will assess this by:_____
Has not and will not assess this ☐ because:_____

Has the textile producer developed laundry instructions to minimise emissions of plastic microfibres?