

Nordic Ecolabelling for
Disposables for food



Version 4.8 • 14 June 2017 - 31 December 2025

Content

What are Nordic Swan Ecolabelled Disposables for food?	4
Why choose the Nordic Swan Ecolabel?	4
What can carry the Nordic Swan Ecolabel?	5
How to apply	6
1 General requirements	8
1.1 About the requirements and necessary definitions	8
1.2 Description of the product and material composition	9
2 Environmental requirements	11
2.1 Pulp, paper, paperboard and cardboard	11
2.2 Other renewable raw materials	16
2.3 Chemicals	18
2.4 Food contact	25
2.5 Waste	26
2.6 Product properties	28
3 Quality and regulatory requirements	28
Regulations for the Nordic Ecolabelling of products	29
Follow-up inspections	29
History of the criteria	29
New criteria	31
Terms and definitions	32

Appendix 1 Overview - forms for declaration and documentation

Appendix 2 Guidelines for standard, renewable commodities

Appendix 3 Analysis and test laboratories

Appendix 4 Information on properties

047 Disposables for food, version 4.8, 29 November 2022

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

Addresses

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the 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
Fonden Dansk Standard
Göteborg Plads 1, DK-2150 Nordhavn
Fischersgade 56, DK-9670 Løgstør
Tel: +45 72 300 450
info@ecolabel.dk
www.svanemaerket.dk

Iceland

Ecolabelling Iceland
Umhverfisstofnun
Suðurlandsbraut 24
IS-108 Reykjavík
Tel: +354 5 91 20 00
svanurinn@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
Urho Kekkosen katu 4-6 E
FI-00100 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@svanemarket.no
www.svanemarket.no

Sweden

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

What are Nordic Swan Ecolabelled Disposables for food?

Nordic Swan Ecolabelled disposables for food are amongst the least environmentally harmful products in their category and fulfil requirements relating to both health and the environment.

The products consist of a high proportion of bio-based materials or recycled plastic to reduce the product's climate impact and to contribute to a reduction in dependence on fossil carbons. There are strict environmental, - and health related requirements to the chemicals used in the production of the ingoing materials and in the converting process to the finished disposables, like glue, coatings and printing ink. The disposable should also be designed to promote recycling meaning that e.g. the product must consist of materials that can be material recovered and the adhesive shall not cause problems in the recycling processes.

A Nordic Swan Ecolabelled disposable article:

- Contains a high percentage of renewable materials or recycled plastic
- Are not added fluorine compounds, phtalates, bisphenol A, flavorings or perfume
- Promotes recycling, by e.g. requirements to adhesive and colourings and requirement to labelling with recycling information
- There is traceability on wood raw material and requirement to certification of the wood rav material
- Is not produced from recycled paper/paperboard/cardboard

Why choose the Nordic Swan Ecolabel?

- The product 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 disposables for food for future environmental legislation.
- Nordic Ecolabelling can be seen as providing a business with guidance on the work of environmental improvements.
- The Nordic Swan 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 comprises various products that are intended to be in contact with food for a short period and that are intended for single use. The product types covered can be divided into the following categories:

- Take-away packaging such as coffee cups, pizza boxes, containers and paper for the packaging of food
- Disposable tableware such as cups/glasses, plates, cutlery and drinking straws
- Bags and films for packaging food, such as bread bags, freezer bags and bags for fruit and vegetables
- Coffee and tea filters
- Toothpicks/cocktail sticks and stirrers

Products that cannot be Nordic Swan Ecolabelled

Below is a specification of the types of products that cannot be ecolabelled according to these criteria. Some of these products may, however, be ecolabelled under other criteria. This applies to:

- Napkins – may be ecolabelled under the criteria for Tissue Paper
- Food paper and baking paper – may be ecolabelled under the criteria for Grease-proof Paper
- Straws, disposable cutlery, plates, toothpicks /cocktail sticks and stirrers made of plastic - cannot be ecolabelled
- Waste bags – cannot be ecolabelled
- Carrier bags (for carrying food home from the store) – cannot be ecolabelled

Packaging that is part of a prepacked* food product, e.g. a milk carton or juice bottle, where the finished product has to be labelled in line with Regulation No (EU) 1169/2011 on the provision of food information to consumers, is not included in this product group.

**In this context, prepacked food refers to the definition used in Regulation No (EU) 1169/2011: any single article for presentation as such to the final consumer and to mass caterers, consisting of a food and the packaging into which it was put before being offered for sale, whether such packaging encloses the food completely or only partially, but in any event in such a way that the contents cannot be altered without opening or changing the packaging; "prepacked food" does not cover foods packed on the sales premises at the consumer's request or prepacked for direct sale. Disposable articles that are used for food intended for immediate sale can thus be Nordic Swan Ecolabelled.*

If there is any doubt about whether a product type falls within the product group definition, Nordic Ecolabelling will decide whether the product can be ecolabelled.

How to apply

Application

Applications are submitted to the ecolabelling organisation in the applicant's own country or in the country where the product is marketed, and the application is valid for 12 months. Applications may be processed by another ecolabelling organisation according to agreement between the organisations. The applicant will then be informed. Companies located outside the Nordic countries submit applications to the national ecolabelling organisation of the primary market.

The application must consist of a completed application form/web form and documentation showing that the requirements are fulfilled. The application form must specify in which Nordic countries the products in question are to be sold and the estimated turnover from the products in each country.

For pulp, paper, carton and cardboard including coffee and tea filters, the application tool My Swan Account must be used. Pulps that are included in a Nordic Swan Ecolabelled disposable must be inspected and listed on the Nordic Ecolabelling's website or in My Swan Account.

Producers of board for disposables can apply to get the board inspected by Nordic Ecolabelling for use in ecolabelled disposables for food. The inspection is voluntary and the producer apply by filling in a specific application form available at Nordic Ecolabelling's Nordic webpage, <http://www.nordic-ecolabel.org/>

A list of inspected board qualities will be published on Nordic Ecolabelling's webpage (publicly available). For inspection and publishing of the board a fee will be charged.

Definition of inspected board for disposables: board that is inspected according to the requirements in this criteria document. The board can be used in Swan-labelled disposables for food, but can not be marketed as Swan-labelled.

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

Costs

An application fee is charged to companies applying for a licence. There is an additional annual fee based on the turnover of the Nordic Swan Ecolabelled product. The producer of the pulp is responsible for the application fee and listing fee for the pulp. For information about the application process and fees for this product group, please refer to the respective national web site. For addresses see page 2.

What is required?

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

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

🔍 The requirement checked on site.

Licence validity

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 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 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.

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 2 for addresses. Further information and assistance may be available. Visit the relevant national website for further information.

1 General requirements

1.1 About the requirements and necessary definitions

This section addresses the general requirement areas such as the product descriptions and constituent materials in the products. For definitions, see Definitions and abbreviations.

Below is an overview of the requirements of the criteria document, as well as the forms that can be used to document the requirement.

Table 1: Overview of the requirements

Material	Requirement area/type	Req. no.	Use form
	Information about the product	O1	1
	Material composition	O2	1
PVC/PVDC		O3	1
Pulp	Production requirement – emissions, energy and chemicals	O4	
Paper/paperboard/ cardboard	Production requirement – emissions, energy and chemicals	O5	
Pulp/paper/paperboard/cardboard	Requirements to fiber raw material - sustainable forestry and traceability	O6	2
Grease-proof paper	Production requirement – emissions, energy and chemicals	O7	
Pulp/paper/paperboard/ cardboard	Optical brightener	O8	
Wood, veneer and bamboo	Name, traceability and certification	O9	3
Agricultural raw materials including palm oil, soy and sugar cane	Name, traceability and certification	O10	
Agricultural raw materials	Genetically modified raw materials	O11	
Bio-based polymers	Energy	O12	
Chemical products, classification	General chemical requirement	O13	4a-4e dependent on type of chemical
Classification of ingoing substances	General chemical requirement	O14	4a-4e dependent on type of chemical
Ingoing substances – prohibition list	General chemical requirement	O15	4a-4e dependent on type of chemical
Aromas, flavourings and fragrances	General chemical requirement	O16	1
Adhesives – ingoing chemical substances	Specific chemical requirement	O17	4b
Coatings and impregnations	Specific chemical requirement	O18	4d for silicone 4e for others
Colourants for printing and dyeing	Specific chemical requirement	O19	4c
Chemicals for coffee and tea filters	Specific chemical requirement	O20	
Plastics	Additives in plastic	O21	5

Material	Requirement area/type	Req. no.	Use form
Plastics	Residual monomers in polymers	O22	
Recycled plastics	Chemicals in recycled plastics	O23	
	Individual packaging and cores	O24	
Materials in contact with food	Food contact	O25	
Compostable/ biodegradable plastics	Waste requirement – ban on composting/biodegradable plastics in plastic products	O26	
	Waste requirement – material blends	O27	
Plastics	Waste requirement – black dyes prohibited	O28	
Adhesives	Waste requirement – adhesive for labels	O29	
	Waste requirement – recycling advice	O30	
	Information on properties – general requirement for product properties	O31	
Coffee and tea filters	Specific product requirement – quality requirement for coffee and tea filters	O32	
	Quality and regulatory requirements	O33–O39	

1.2 Description of the product and material composition

01 Information about the product

Applicants must provide the following information about the product(s):

1. Brand/trading name
2. Where the products are to be sold (grocery store, online shop, take-away industry or similar)
3. Description of the product(s):
 - the type of product (e.g. coffee filter, cup for hot/cold drinks, salad bowl, bread bag, freezer bag)
 - constituent materials, e.g. paper, board, plastic (including types such as PE, PP, PLA, etc.), plus a declaration of the constituent quantities of the different material types (% by weight of the individual material in relation to the total weight of the product).

Adhesives and coatings are counted as constituent materials, but not other chemicals such as printing inks.

The overview must include the trading name of the material and the supplier.

Product data sheet or equivalent for each material must be submitted. Materials in the individual packaging*, cores or other parts** that accompany the disposable article must also be declared.

** individual packaging means the packaging that may be around the individual disposable article, e.g. paper around chopsticks or plastic around cutlery.*

*** core means, e.g. the cardboard tube that plastic film or plastic bags are rolled around. Other parts may include lids for coffee cups.*

4. Description of the production process for the product, including conversion.

Suppliers must be specified by business name, production site, contact person and the production processes they perform (e.g. printing).

5. It must be stated whether chemicals are used in the conversion, e.g. adhesives, coatings or printing inks. Chemicals used in the individual packaging, cores or other parts must also be included.

If yes, submit a list of the chemicals used in the conversion.



Description in accordance with the requirement. Appendix 1, form 1 may be used. A product data sheet may be sent as part of the documentation.

02 Material composition

Products in plastic

Straws, disposable cutlery, plates, toothpicks /cocktail sticks and stirrers made of plastic cannot be ecolabelled. See also requirement O27.

Ingoing materials

At least 90% by weight of the disposable article must be bio-based* or made from recycled** plastic.

The recycled plastic must fulfill Regulation (EC) No 282/2008 on recycled plastic materials and articles intended to come into contact with foods. The recycling process must be approved and published on EU's official list over approved recycling processes, see article 9 in the regulation 282/2008.

A maximum of 10% by weight of the disposable article may comprise non-renewable materials. Coatings and adhesives are to be included in the material composition calculation. Other chemicals, such as printing inks and additives, should not be included.

Inorganic filler*** should not be counted in the proportion of non-renewable materials. Inorganic fillers can be used in plastic, but the plastic can have a density of max 0,995 g/ccm or it must be documented in another way that the addition of inorganic fillers will not affect the possibility for material recovery in floating/sinking processes. The limit does not apply to plastics that are used in the lamination and coating of paper and board-based products.

Metal and recycled pulp/paper/paperboard/cardboard are not permitted.

Individual packaging, cores and other parts as described in O1 must be included in the material composition.

** Biobased plastic: Nordic Ecolabelling will not approve plastic that are biobased by mass balance method in products that only consist of plastic.*

For plastic used as coating, for instance coating on paperboard for coffee cups and drinking cups and for bio-based plastic that comprise less than 10% by weight in the disposable article, Nordic Ecolabelling will approve the use of the mass balance method under the following assumptions:

1. *It can be confirmed that the renewable raw material is not used as an energy source, but is used in the production of products*
2. *The mass balance system must be controlled by an independent third party. As a minimum it must be controlled that the amount of renewable raw material purchased corresponds with the amount of polymer sold as biobased.*

If the mass balance method is used the producer of the disposable article/license holder must show that they have purchased biobased polymer, for instance with a specification on the invoice.

***for recycled plastic the definitions in ISO 14021 as well as in Regulation 282/2008 apply, see Terms and definitions.*

****examples of inorganic fillers are kaolin, calcium carbonate and clay.*

- ☒ Calculation showing that at least 90% by weight of the disposable article is biobased or made from recycled plastic. Appendix 1, form 1 can be used.
- ☒ Bio-based plastic for products that only consist of plastic: confirmation that only renewable raw materials are used in the production. If both bio-based and fossil based plastic are produced at the same production site it must be shown that there is full traceability on the renewable raw material in the production, for instance a confirmation that there are separate production lines or batchwise production. Alternatively it can be documented by a test for biobased content in accordance to the method in EN 16640:201, EN 16785-1:2015 or equivalent.
- ☒ Bio-based plastic for coating: If the mass balance method is used, a declaration/certificate from an independent third party confirming that:
 - the renewable raw material is used in the production of products, not as an energy source in the production facility
 - there is a system in place for controlling amount of purchased renewable raw material and the amount of bio-based polymer sold, so that no more bio-based polymer is sold than purchased of renewable raw materials
 Producer of the disposable article/license holder shall document that they buy bio-based polymer, for instance with a specification on the invoice.
- ☒ For recycled plastic, documentation must be provided to confirm that the plastic is approved under the stated EU regulation - meaning that the process must be approved in the Community register of authorised recycling processes, as stated in article 9 in the regulation 282/2008. Specify name of the recycling process and name of company of the approved process.
- ☒ Declaration from the manufacturer of the disposable article, or the supplier of the material, stating that it does not contain recycled paper, cardboard, paperboard or metal. Appendix 1, form 1 can be used.
- ☒ Information on the type of inorganic filler and its quantity (% by weight) in the plastic, as well as the density of the plastic, or other documentation that confirms that the plastic will not sink in the material recovery process.

03 PVC and PVDC

PVC and PVDC must not be present in the product, included individual packaging, cores and other parts or the primary packaging*.

**Primary packaging applies to the packaging which the customer gets in hand when purchasing a product, for example the plastic packaging covering 100 disposable forks or the plastic covering 200 coffee filters.*

- ☒ Declaration from the manufacturer of the disposable article, or from the supplier of the plastic material, that no PVC or PVDC is present. Appendix 1, form 1 can be used.

2 Environmental requirements

2.1 Pulp, paper, paperboard and cardboard

The requirements concerning pulp, paper, paperboard and cardboard are stated below. Nordic Ecolabelling has requirements for paper products in other sets of criteria, to which the requirements below refer. Reference is made to the following modules and criteria:

- Nordic Swan Ecolabelling of Paper Products – Basic Module, version 2 or later
- Nordic Swan Ecolabelling of Paper Products – Chemicals Module, version 2
- Criteria for the Nordic Swan Ecolabelling of Grease-proof Paper, version 4 or later

In addition to the existing criteria for paper products mentioned above, other types of paper, paperboard and cardboard may be present in disposables for food that are not covered by the above-mentioned criteria. These are subject to their own requirements concerning energy and CO₂ emissions and emissions to air and water. Reference values and requirement limits for these are stated in requirement O4 and O5 below.

Please note that O18 and O19 under the chapter 2.3 Chemicals also apply to the production of pulp, paper, paperboard and cardboard.

Individual packaging made from paper/paperboard/cardboard does not need to meet these requirements, but is subject to its own requirement (see O24).

The pulp- and paper manufacturer must document the requirements in the web-based application tool My Swan Account. My Swan Account can be found on <http://www.nordic-ecolabel.org/portals/paper/my-swan-account1/>.

The requirements in chapter 2.1 concern ingoing materials in the disposable article and not the converting process or the finished disposable article.

O4 Pulp

Pulp has to meet all the relevant requirements in the Basic Module for Paper Products, version 2 or later and the Chemical Module for Paper Products, version 2 or later.

The reference values for undried NSSC* pulp is for electricity: $E_{reference} = 3200$ kWh/tonne and for fuel: $Fuel_{reference} = 700$ kWh/tonne pulp.

Reference values for emission from NSSC pulp:

	Reference values emission (kg/tonne pulp)			
	COD	P	S	NO _x
NSSC	8	0,02	0,4	1,5

* NSSC stands for Neutral Sulfite Semi Chemical

Documentation of the requirements must be done in the application tool My Swan Account (MSA). Please contact Nordic Ecolabelling for username and password.



The pulp manufacturer must show that the requirements are fulfilled with completed forms in MSA. Documentation as specified in the requirements referred to in the Basic Module and Chemical Module for Paper Products, version 2 or later.

O5 Paper, paperboard and cardboard

Paper and board covered by the Basic Module for Paper Products

Paper and board that are covered by the Basic Module for the Nordic Swan Ecolabelling of Paper Products version 2 or later must meet all the relevant

requirements in the Basic Module and the Chemical Module for Paper Products, version 2 or later, with the exception of R7 Fiber raw materials and R11 Transport in the Basic Module. There is an own requirement for fiber raw material in this criteria document, see O6.

As an alternative for requirement for low molecular organochloride compounds in wet strength agents (R7) in the Chemical Module, v2 or later, the paper/board shall fulfill requirements for the dichloroisopropanol (DCP) and chloropropanediol (CPD) in BfR's recommendation XXXVI. Paper and board for food contact, from April 2021 or more recent versions.

If the paper or board already carries the Nordic Swan Ecolabel or has been checked by Nordic Ecolabelling, the requirement is considered to be fulfilled. This is to be documented by providing licence certificate or information on the trading name and the manufacturer of the checked material.

Paper, paperboard and cardboard not covered by the Basic Module

Paper, paperboard and cardboard that are not covered by the Basic Module for the Nordic Swan Ecolabelling of Paper Products version 2 or later must meet all the relevant requirements in the Basic Module and the Chemicals Module for Paper Products, version 2 or later, with the exception of R7 Fiber raw materials and R11 Transport in the Basic Module. There is an own requirement for fiber raw material in this criteria document, see O6. For energy and CO₂, plus emissions to air and water, the reference values and requirement limits for the paper machine stated below apply. The calculation methods used in the Basic Module for Paper Products, version 2, are to be used.

As an alternative for requirement for low molecular organochloride compounds in wet strength agents (R7) in the Chemical Module, v2 or later, the paper/board shall fulfill requirements for the dichloroisopropanol (DCP) and chloropropanediol (CPD) in BfR's recommendation XXXVI. Paper and board for food contact, from April 2021 or more recent versions.

Energy and CO₂

Table 2: Reference values for energy and requirement limits for CO₂

	Energy – reference values (kWh/tonne paper/paperboard/cardboard)		CO ₂ – requirement limit (kg CO ₂ /tonne paper/paperboard/cardboard)
	Fuel	Electricity	
Filter paper for coffee/tea	1700	700	*
Paperboard for disposables ("cupboard")	1700	800	*
Kraft liner	1700	700	*
Fluting	1700	700	*/1200**

*Limit value varies based on constituent pulps, see K10 in the Basic Module, version 2 or later.

**If NSSC pulp is constituent the limit value is 1200 kg CO₂/tonne fluting.

*Emissions to air and water***Table 3: Reference values for COD, P, S and NOx**

	Reference values (kg/tonne paper/paperboard/cardboard)			
	COD	P	S	NOx
Filter paper for coffee/tea	1.3	0.01	0.2	0.5
Paperboard for disposables ("cupboard")	2.0	0.01	0.15	0.7
Kraft liner	2.0	0.01	0.15	0.7
Fluting	2.0	0.01	0.15	0.7

An application for approval of pulp, paper and board is to be made via the electronic application tool My Swan Account (MSA). Contact Nordic Ecolabelling for a user name and password.

- ✉ The paper/paperboard/cardboard manufacturer must show that the requirements are fulfilled with completed forms in MSA. Documentation as specified in the requirements referred to in the Basic Module and Chemical Module for Paper Products, version 2 or later or licence certificate from Nordic Ecolabelling or details of the trading name and the manufacturer of the checked material.

06 Fiber raw material

The requirement consists of four parts that all must be fulfilled:

1. Virgin tree species listed on Nordic Ecolabelling's list of restricted tree species* must not be used in pulp and paper.

The list consists of tree species listed on:

- a) CITES (Appendices I, II and III)
- b) IUCN red list, categorized as CR, EN and VU
- c) Rainforest Foundation Norway's tree list
- d) Siberian larch (originated in forests outside the EU)

Exemptions

Eucalyptus and Acacia used for pulp and paper production are exempted from the list.**

Tree species listed on either b), c) or d) may be used if it meets all of the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 <http://www.intactforests.org/world.map.html>.
- the tree species shall originate from FSC or PEFC certified forest/plantation and shall be covered by a valid FSC/PEFC chain of custody certificates documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method. Tree species grown in plantation shall in addition originate from FSC or PEFC certified forest/plantation, established before 1994.

* The list of restricted tree species is located on the website: <http://www.nordic-ecolabel.org/certification/paper-pulp-printing/pulp--paper-producers/forestry-requirements-2020/>

**** Regarding pulp, fibre raw material from eucalyptus/acacia must be a minimum of 70% certified.**

2. The pulp producer must state the name (species name) of the wood raw material used in the production of pulp.
3. The pulp and paper/board producer must be Chain of Custody certified in accordance to FSC or PEFC.
4. Certification:

Paper/board: yearly/the latest 12 months, a minimum of 70% of the wood raw material that are used in the paper/board must origin from forestry certified under the FSC or PEFC schemes. The remaining proportion of wood raw material must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).

Pulp: If the pulp is used directly in the finished packaging, for instance as pressed pulp, yearly/the latest 12 months, a minimum of 70% of the wood raw material in the pulp must origin from forestry certified under the FSC or PEFC schemes. The remaining proportion of wood raw material must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).

- ☒ Declaration from the pulp manufacturer that tree species listed on a-d) are not used. Regarding acacia/eucalyptus, documentation showing that the quantity of certified fibre in pulp is met. Appendix 1, form 2 shall be used.

If species from the lists b), c) or d) is used:

- ☒ The applicant/manufacturer/supplier are required to present a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.

- ☒ The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that;
- the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;
 - the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 <http://www.intactforests.org/world.webmap.html>;
 - For plantations the applicant/manufacturer/supplier are required to document that the tree species does not originate from FSC or PEFC certified plantations established after 1994.

- ☒ Name (species name) of the wood raw materials used in the pulp production. Appendix 1, form 2 can be used.

- ☒ A valid FSC/PEFC Chain of Custody certificate from the pulp- and paper/paperboard producer covering all the wood raw materials in the pulp/paper/paperboard.

- ☒ Certification pulp/paper/paperboard: The producer of the disposable article shall document, for instance based on invoice or delivery note, that the requirement of minimum 70% certified pulp/paper/paperboard are purchased on a yearly basis.

07 Grease-proof paper

Grease-proof paper must meet the requirements in "Nordic Swan Ecolabelling of Grease-proof Paper – Supplementary Module", version 4 or later. The Supplementary Module refers to the Basic Module for the Nordic Swan Ecolabelling of Paper Products, version 2 or later on certain points. Exception is

made for R11 Transport in the Basic Module. There is an own requirement for fiber raw material in this criteria document, see O6.

An application for approval of grease-proof paper is to be made via the electronic application tool My Swan Account (MSA). Contact Nordic Ecolabelling for a user name and password.

If the grease-proof paper is already Nordic Swan Ecolabelled in line with the criteria for the Nordic Swan Ecolabelling of Grease-proof Paper – Supplementary Module, version 4 or later, the requirement is fulfilled and may be documented with a licence certificate.

- ☒ The manufacturer of the grease-proof paper must show that the requirements are fulfilled with completed forms in MSA. Documentation as described in the stated requirements in Grease-proof Paper – Supplementary Module, or certification of the licence.

08 Optical brightener

Optical brighteners must not be added in the production of pulp, paper, paperboard or cardboard.

- ☒ Declaration from the producer of the pulp, paper or board confirming that optical brighteners are not used.

2.2 Other renewable raw materials

09 Wood, veneer and bamboo

1. Tree species on Nordic Ecolabelling's list of prohibited tree species* must not be used.

** The list of prohibited tree species is on the website: www.nordic-ecolabel.org/wood/*

2. The applicant/manufacturer/supplier must state the name (species name) of the wood raw materials/bamboo used in the Nordic Swan Ecolabelled disposable article.
3. Suppliers of wood raw materials and bamboo must have Chain of Custody certification under FSC/PEFC's schemes.
4. 70% of the wood and bamboo used in the Nordic Swan Ecolabelled disposable article must origin from forestry certified under the FSC or PEFC schemes.
The remaining proportion of wood raw material/bamboo must be covered by the FSC/PEFC control schemes (FSC controlled wood/PEFC controlled sources).
The requirement must be documented as purchased amount of wood/bamboo annually.

- ☒ Declaration from the applicant/manufacturer/supplier confirming fulfilment of the requirement concerning prohibited tree species. Appendix 1, form 3 may be used.
- ☒ Name (species name) of the wood raw materials/bamboo used in the Nordic Swan Ecolabelled disposable article. Appendix 1, form 3 may be used.
- ☒ A valid FSC/PEFC Chain of Custody certificate from all the suppliers, covering all the wood raw materials/bamboo used in the Nordic Swan Ecolabelled disposable article.
- ☒ Documentation such as an invoice or delivery note (paper or via e-invoicing) from the producer of the disposable article/licence holder showing fulfilment of the certification requirement on a yearly basis.

010 **Agricultural raw materials including palm oil, soy and sugar cane**

The requirement does not apply to secondary raw materials*.

For all agricultural raw materials, state the name (in Latin and English), plus geographical origin (country/state) and supplier of the agricultural raw materials used.

Sugar cane

For bio-based plastic in products that only consist of plastic or that constitute more than 10% by weight in the disposable article: Sugar cane must be Bonsucro-certified.

Palm oil and soy oil

Bio-based plastic in products that only consist of plastic:

Palm oil and soy oil can not be used as a raw material in the production of bio-based plastic.

Bio-based plastic used for coating or that constitute less than 10% by weight in the disposable article:

Palm- and soy oil are allowed as a raw material in bio-based plastic used as coating and in plastic that constitute less than 10% by weight in the disposable article. This also applies if the bio-based plastic for coating is bio-based by using the mass balance method. The raw materials shall have the following certification:

- Palm oil, palm kernel oil and palm oil derivatives must be RSPO certified
- Soy oil must be RTRS certified

Certified raw material (sugar cane, palm oil and soy oil)

Producer of biobased polymer or suppliers of certified raw materials must be traceability (Chain of Custody, CoC) certified in line with the current certification system, and the traceability must be assured via the mass balance system. The book and claim system is not accepted.

The producer of the bio-based polymer must document the purchase of certified raw materials.

The license holder/producer of the disposable article must document that it is purchased bio-based polymer with the use of certified raw materials, for instance by a specification on the invoice or delivery note.

** Secondary raw materials are defined here as residual products from other production processes, such as waste products from the food industry, by-products such as straw from grain production, by-products from maize and dried palm leaves. PFAD from palm oil is not counted as a residual/waste product.*

Nordic Ecolabelling may assess other certification schemes for the raw materials above as they become relevant. The certification scheme will be assessed according to Nordic Ecolabelling's requirements concerning standards and certification systems, as set out in Appendix 2.

- ☒ Name (in Latin and English language) and geographic origin (country/state) of the agricultural raw materials used.
- ☒ Copy of valid CoC certificate or certification number. Documentation such as an invoice or delivery note from the producer of the bio-based polymer and the disposable article, showing that bio-based polymer with certified raw material was purchased.

011 **Genetically modified raw materials**

The requirement applies to bio-based polymer in products that only consist of plastic and if the bio-based polymer makes up more than 10% of the product by

weight. The requirement do not apply to bio-based plastic used as coating on paper/paperboard/cardboard.

The use of genetically modified agricultural raw materials in the production of bio-based polymer is prohibited. GMO based on bacterias or enzymes manufactured in closed systems is allowed.

Secondary raw materials are exempted from the requirement, see O9 for a definition.

- ☒ Declaration from the manufacturer of the bio-based polymer that genetically modified raw materials are not used.

012 Energy – bio-based polymers

The requirement applies to bio-based polymers that make up more than 10% of the disposable article by weight. Requirement a) or b) must be fulfilled.

- a) The manufacturer of the polymer (production plant) must be certified in line with ISO 50001.

or

- b) The energy consumed in the production of the bio-based polymers must not exceed 50 MJ/kg polymer. The calculation of energy consumption must include all the processes from monomer production to finished polymer. Energy from cultivation and extraction of the raw material, transport of the raw material to the production site and the energy content of the actual raw material should not be included in the calculation.

Energy from both renewable and non-renewable energy sources must be included in the calculation.

- ☒ For alternative a) certificate showing that the manufacturer (production plant) of the polymer (production plant) is certified in line with ISO 50001.

- ☒ For alternative b) information about electricity and fuel consumption and copy of invoice or confirmation of consumption from the supplier. State total kg polymer produced plus a calculation of total energy consumption in MJ/kg polymer produced. A description must be provided of how the energy consumption from the different subprocesses is included in the calculation.

2.3 Chemicals

This section deals with chemical products and ingoing substances in chemical products. The requirements apply to chemical products that:

- are used in the production/composition (conversion) of the disposable article, such as adhesives, printing inks and coatings
- are added to the disposable article, such as aroma and fragrance
- additives in plastic (both fossil and bio-based plastics included, irrespective of quantity)
- residual monomers in plastic (both fossil and bio-based plastics included, irrespective of quantity)

The requirements do not apply to:

- auxiliary chemicals used during manufacture, such as lubricants, cleaning chemicals and so on.
- chemicals used in the production and printing of primary packaging.

- chemicals in the production process for pulp/paper/paperboard/cardboard, including grease-proof paper, since these must meet the requirements in “Nordic Ecolabelling of Paper Products – Chemical Module”, version 2 or later. Chemicals that may be used in the production process for pulp/paper/paperboard/cardboard must however also meet:
 - O18 in this criteria document which includes chemical additives for pulp.
 - O19 for colourants in this criteria document.

There are also chemical requirements concerning individual packaging and cores, see specific requirement O24.

The chemical requirements address the chemical product (e.g. a classification requirement for adhesives), but they may also address ingoing substances in the individual chemical product, i.e. ingoing substances in the adhesive. These requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

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 chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg). 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.

013 Chemical products, classification

Chemical products used in the production/composition (conversion) of the disposable article (e.g. adhesive or colourant) must not be classified as specified in Table 4.

The requirement also applies to additives to plastics, where it later in the criteria document is referred to this requirement, see O21.

Table 4: Classification of chemical products

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1	H400
	Aquatic Chronic 1-4	H410, H411, H412
Acute toxicity	Acute Tox. 1, 2	H330, H310, H300
	Acute Tox. 3	H331, H301, H311
Specific target organ toxicity	STOT SE 1	H370
	STOT RE 1	H372
Allergenic	Resp. Sens. 1 or	H334
	Skin Sens 1	H317

Carcinogenic	Carc. 1A/1B Carc. 2	H350 H351
Germ cell mutagenicity	Muta. 1A/B Muta. 2	H340 H341
Reproductive toxicity	Repr. 1A/1B Repr. 2	H360, H361 H362

The producers of the chemical products are responsible for the classification.

- ☒ Overview of chemicals used
- ☒ Safety data sheet for all chemical products pursuant to prevailing European legislation.
- ☒ Duly completed and signed Appendix 1, form:
 - 4a Declaration - Other chemical products, or
 - 4b Declaration - Adhesive, or
 - 4c Declaration - Colourants/printing inks, or
 - 4d Declaration - Silicone coating or
 - 4e Declaration - Coating/impregnation chemicals

The form must be filled in by the manufacturer/supplier of the chemical product.

014 Classification of ingoing substances

Ingoing substances in chemical products used in the production/composition (conversion) of the disposable article (e.g. adhesive or colourant) must not have a classification listed in Table 5.

An exception is made for:

- formaldehyde in newly produced polymer, see O17

The requirement also applies to additives to plastics, where it later in the criteria document is referred to this requirement, see O21.

Table 5: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B Carc. 2	H350 H351
Germ cell mutagenicity	Muta. 1A/B Muta. 2	H340 H341
Reproductive toxicity	Repr. 1A/1B Repr. 2	H360, H361 H362

- ☒ Duly completed and signed Appendix 1, form:
 - 4a Declaration - Other chemical products, or
 - 4b Declaration - Adhesive, or
 - 4c Declaration - Colourants/printing inks, or
 - 4d Declaration - Silicone coating or
 - 4e Declaration - Coating/impregnation chemicals

The form must be filled in by the manufacturer/supplier of the chemical product.

015 Chemical substances – prohibition list

The following substances must not be ingoing substances in chemical products used in the production/composition (conversion) of the disposable article (e.g. adhesive or colourant):

- Substances on the Candidate List*
D4, D5 and D6 in silicone polymer have an own requirement, see O18.
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects***
- Phthalates****
- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation)
- BHT - butylhydroxytoluene
There is an exemption for BHT up to 2 ppm in water-repelling coatings used on articles made from board. Please note that a plastic layer on the product is not considered a coating. The exemption expires if the substance fulfils one of the following during the validity of the criteria:
 - The substance is included on the EU Candidate list* or List 1 on the website www.edlist.org
 - ECHA Endocrine Disruptor Expert Group assesses the substance and considers it an endocrine disruptor
<http://echa.europa.eu/sv/ed-assessment>
 - The substance is included on List 3 on the website www.edlist.org
- Bisphenols A, F and S
- Halogenated organic compounds. An exception is made for:
 - halogenated organic pigments that meet the European Council's "Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food", point 2.5
- Antibacterial agents (e.g. nanosilver)*****

The requirement also applies to additives to plastics, where it later in the criteria document is referred to this requirement, see O21.

* The Candidate List can be found on the ECHA website:

<http://echa.europa.eu/candidate-list-table>

** PBT and vPvB in accordance with the criteria in Annex XIII of REACH

*** Substances considered to be potential endocrine disruptors in category 1 or 2, see following link:

http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm

**** The prohibition does not include polyethylene terephthalate (PET).

*****An antibacterial agent is a chemical/product that inhibits or stops growth of microorganisms such as bacteria, fungi or protozoa (single-celled organisms). The requirement does not apply to preservatives used to preserve the chemical product, so-called in-can preservatives.



Duly completed and signed Appendix 1, form:

- 4a Declaration - Other chemical products, or

- 4b Declaration - Adhesive, or
- 4c Declaration - Colourants/printing inks, or
- 4d Declaration - Silicone coating or
- 4e Declaration - Coating/impregnation chemicals

The form must be filled in by the manufacturer/supplier of the chemical product.

016 Aromas, flavourings and fragrances

Aromas, flavourings, fragrances or other aroma compounds (e.g. essential oils, plant oils and plant extracts) must not be ingoing substances in the disposable article.

- ☒ Declaration from the manufacturer of the disposable article that there are no aromas, flavourings, fragrances or other aroma compounds as ingoing substances in the disposable article. Appendix 1, form 1 may be used.

017 Adhesives

Ethylene glycol ethers or rosin must not be ingoing substances in adhesives. The exception is modified rosin derivative which is not classified as allergenic.

Formaldehyde generated during the production process may amount to no more than 250 ppm (0.0250% by weight) measured in newly produced polymer dispersion*. The content of free formaldehyde in hardened adhesive must not exceed 10 ppm (0.001% by weight) **.

Hotmelt adhesives are exempted from the requirement to document formaldehyde.

Information on test methods and analysis laboratories is provided in Appendix 3.

** Measured using the VdL-RL 03 method "In-can concentration of formaldehyde determined by the acetyl-acetone method" or the Merckoquant method (see Appendix X of RAL-UZ 102), or some other equivalent method.*

*** Measured using the Merckoquant method (see Appendix X of RAL-UZ 102), or some other equivalent method.*

- ☒ Safety data sheet for the product. Declaration from the adhesive producer that the requirement is fulfilled. Appendix 1, form 4b may be used. Results of analysis of the formaldehyde content of the adhesive.

018 Coatings and impregnations

Chromium compounds and fluorinated compounds must not be ingoing substances in the chemicals used for coating/impregnating/mixing into the pulp/paper/paperboard/disposable article.

The following requirements apply to the silicone treatment of disposable articles or parts thereof:

- Solvent-based silicone coatings must not be used.
- Octamethylcyclotetrasiloxane, D4 (CAS 556-67-2), decamethylcyclopentasiloxane, D5 (CAS 541-02-6) and dodecamethyl cyclohexasiloxane, D6, (CAS 540-97-6) must not be ingoing substances in the chemical products used for silicone treatment. The requirement does not apply to D4, D5 and D6 contained as impurities in the finished commercial product in concentrations below 800 ppm (0.08% by weight).*
- Organotin catalysts must not be used in the production of the silicone polymer.

**Finished commercial product refers to the silicone emulsion's coating bath.*

Nordic Swan Ecolabelled grease-proof paper fulfils the requirement.

- ☒ Declaration from the chemical supplier that chromium or fluorinated compounds are not ingoing substances in the coating/impregnation chemicals. Appendix 1, form 4e may be used. Safety data sheet for the product.
- ☒ Confirmation from the manufacturer of the pulp, paper, paperboard and cardboard that no chromium or fluorinated compounds were added in the production of the pulp or paper/paperboard/cardboard.
- ☒ Declaration from the chemical supplier that octamethylcyclotetrasiloxane, D4, decamethylcyclopentasiloxane, D5 and/or dodecamethyl cyclohexasiloxane, D6, are not present in the chemical products used for silicone treatment in concentrations above 800 ppm. State the amount of D4, D5 and D6. Appendix 1, form 4d may be used.

019 Colourants for printing and dyeing

The requirement applies to colourants for printing, dyeing and shading.

All colourants used for printing, dyeing and shading must be declared and safety data sheets for the products must be submitted. All colourants must meet the following requirements:

- Halogenated organic pigments must meet the European Council's "Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food".

In addition, the following requirements apply:

- Colourants used for printing, dyeing and shading must meet BfR's (Federal Institute for Risk Assessment) recommendations: "IX. Colorants for Plastics and other Polymers Used in Commodities"* or Swiss Ordinance 817.023.21 Annex 2 and 10.

Alternatively, colourants used for shading and/or dyeing of paper/paperboard/cardboard can meet the following requirement:

- BfR's recommendation XXXVI. Paper and board for food contact, from July 2015 or more recent versions.

** In case of colourants used in paper/paperboard/cardboard, condensation products of aromatic sulfonic acids with formaldehyde are exempted from the requirement in BfR IX, but must fulfil the requirements in BfRs XXXVI. See also O25.*

Note that colourants for printing, shading and dyeing of paper, paperboard or cardboard must also meet the requirements set out in the Chemicals Module for Paper Products, version 2 or later, see requirement O5.

- ☒ State which colourants are used. Safety data sheet for the colourant. Declaration from the manufacturer of the colourant that the requirement is fulfilled. Appendix 1, form 4c may be used.

020 Chemicals in coffee and tea filters

No adhesives or other chemicals may be added to the paper in the conversion process.

- ☒ Declaration from the manufacturer confirming that no adhesives or other chemicals are added to the paper in the conversion process for coffee and tea filters.

021 Additives in plastic

Additives in plastic, such as stabilisers, antioxidants, plasticisers, colourants/pigments and fillers (except for inorganic fillers) must meet the requirement concerning classification of chemical products, O13, and the requirements concerning ingoing substances in the chemical products, O14 and O15.

- ☒ Declaration from the plastic manufacturer that the requirement is fulfilled. Appendix 1, form 5 may be used. Safety data sheet for the additive.

022 Residual monomers in polymers

Residual monomers that have a classification listed in Table 6 below may only be present in polymer to a maximum of 100 ppm. The amount can be maximum 100 ppm for each classification.

The content of residual monomers must be measured on the newly produced polymer.

Table 6: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A/B	H340
	Muta. 2	H341
Reproductive toxicity	Repr. 1A/1B	H360, H361
	Repr. 2	H362

- ☒ Declaration from the polymer manufacturer that the content is no more than 100 ppm. Appendix 1, form 5 may be used.

023 Chemicals – recycled plastics

Phthalates, bisphenol A and styrene must not be present in the recycled plastic. This may be documented using a test of the recycled material, or documentation of full traceability can be used to show that these substances are not present.

Additives in recycled plastic must meet requirements O13, O14 and O15.

For test methods, see Appendix 3.

- ☒ Test or documentation showing that the recycled plastic contains no phthalates, bisphenol A or styrene.
- ☒ Declaration from the supplier of the recycled plastic that any additives meet requirements O13, O14 and O15.

024 Individual packaging and cores

Individual packaging or cores made from paper/paperboard/cardboard must meet the following requirements:

- The paper/paperboard/cardboard or the pulp used for this must not be bleached using chlorine gas (Cl₂).
- The manufacturer of the paper/paperboard/cardboard must be CoC certified in line with the FSC/PEFC schemes.
- The requirement concerning aromas, fragrances and flavourings, O16

- d) The chemicals used, such as adhesives, printing inks and coatings, must meet the following requirements:

- O13 Classification of chemical products

The requirement does not apply to chemicals in the production of the pulp/paper/paperboard/cardboard, but the chemicals used for example when bonding seams or printing on individual packaging.

- O18 Coatings and impregnations

Individual packaging or cores made from plastic must meet the following requirements:

- a) Name (in Latin and English), plus geographical origin (country/state) and supplier of the agricultural raw materials used in bio-based plastic.
- b) The requirement concerning aromas, fragrances and flavourings, O16
- c) The chemicals used, e.g. adhesives and printing inks, must meet:

- O13 Classification of chemical products

The requirement does not apply to chemicals in the production of the plastic, but the chemicals used for example when bonding seams or printing on individual packaging.

- d) Additives in plastic must meet:

- O13 Classification of chemical products

Documentation for individual packaging or cores made from pulp/paper/paperboard/cardboard:

- ☒ Declaration from the manufacturer of pulp, paper, paperboard, cardboard that chlorine gas is not used for bleaching.
- ☒ Declaration from the manufacturer or supplier that O13 and O18 are fulfilled.

Documentation for individual packaging or cores made from plastic:

- ☒ For bio-based polymers, state the name and origin of the raw material.
- ☒ Declaration from the producer/supplier of the chemical that O13 is fulfilled.
- ☒ Declaration from the plastic manufacturer that the additives for the polymer fulfil O13.

O16 is documented by the manufacturer of the disposable article, see O16.

2.4 Food contact

O25 Materials in contact with food

The product must comply with Regulation (EC) No 1935/2004, as amended, on materials and articles intended to come into contact with food and the production of the product must comply with the Regulation (EC) No 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food.

In addition, the following requirements for plastics and for pulp, paper, paperboard and cardboard apply:

Plastics

If the product comprises or contains parts made from plastic, it must comply with Regulation (EU) No 10/2011, as amended, on plastic materials and articles intended to come into contact with food.

For recycled plastic, see also O2.

Pulp, paper, paperboard, cardboard

Pulp, paper, paperboard, cardboard in the product must meet one of the two following recommendations:

- BfR's recommendation XXXVI. Paper and board for food contact, from July 2015 or more recent versions, or
- CEPI's Industry guideline for the Compliance of Paper & Board materials and articles for food contact, Issue 2, September 2012 or more recent versions.

Fulfilment of the requirements must be certified/evaluated by an independent third party.

It is emphasized that the requirements of this criteria document are superior to the requirements in regulations and recommendations. This means that a chemical may be prohibited in a swan-labeled disposable article, although permitted by regulations and recommendations.

- ☒ Copy of the certificate or declaration from an independent third party, confirming fulfilment of the requirement.

2.5 Waste

026 Biodegradable/compostable polymers in plastic products

Products that only consist of plastic must not comprise polymers/plastics that cannot undergo material recovery in current recycling plants.

"Polymers/plastics that cannot undergo material recovery" refers to biodegradable/compostable plastics such as PLA.

It is emphasized that combustion with energy recovery is not considered as material recovery.

- ☒ Documentation showing the product's constituent materials, see O1.

027 Mixing different materials

The mixing of polymer and pulp/paper/board, where the materials cannot be separated from each other in a material recycling process* or easily by the consumer (using just their hands), is not permitted.

** use of laminates and plastic coatings on paper and board-based products is exempted from the requirement, since these can be separated from the paper/board material in the recycling plants.*

- ☒ Description of the materials in the product and documentation showing fulfilment of the requirement.

028 Dyed plastic products

Pure plastic components must not be dyed black.

- ☒ Documentation for any plastic components and their colourants, showing fulfilment of the requirement.

029 Adhesive for labels

Adhesive used to attach a label to the disposable article must be hotmelt adhesive (melts at 60–80°C) or water-soluble and alkaline.

- ☒ Documentation (e.g. product data sheet) for the adhesive, showing that it is water-soluble and alkaline, or that it is a hotmelt adhesive.

030 Recyclability and labelling

Recyclability

- The product must be recyclable *

or

- consist of 100% renewable materials such as wood or palm leaves provided that the product is not added/surface treated with chemicals or coated with other materials.

Information about compostable/biodegradable

It is prohibited to label product and packaging with compostable **, biodegradable or other similar statements.

Labelling

For products that the consumer buys with them, e.g. freezer bags, plates, cutlery, cups/glasses the following applies:

- the main material in the product must be specified, e.g. "cardboard cup", "plastic"
- it must be labelled with the following information: sort correctly - do not throw in nature ***
- the information may be on the product and/or packaging
- the information must be in the form of text
- the information must be visible and readable to the consumer
- the information can be embossed, stamped or printed on

For products sold to the professional market (B2B) such as restaurants, cafés, hotel/conference facilities, gas stations and the like, e.g. coffee cups, salad bowls, bags and paper for food wrapping the following applies:

- the main material in the product must be specified
- it must be labelled with the following information: do not throw in nature ***
- the information must be on the product ****
- the information can be in the form of text and/or symbol
- the information must be visible and readable to the consumer
- the information can be embossed, stamped or printed on

** Incineration with energy recovery is not considered as material recovery.*

*** Exceptions are given for coffee filters.*

**** Exceptions are given for cups labelled in accordance with Article 7 of the EU Single-use plastics directive (EU Directive 2019/904).*

***** Exceptions are given for products where it is technically difficult to label the product due to its design and size, e.g. cutlery, straws and stirrers. In such cases, the information must be on the packaging.*



Provide documentation such as images of the stamp, label, artwork or similar, showing fulfilment of the requirement.

2.6 Product properties

031 Information about properties

Product data sheets are to be drawn up for all the relevant languages for the Nordic Swan Ecolabelled disposable article. The product data sheet must, as a minimum, contain information about the properties of the product as stated in Appendix 4 – if they are relevant for the product type.

Documentation must show that the disposable article has the properties which the product is marketed as having and which are stated on the product data sheet. The documentation should, in the first instance, be a standardised test. If no standardised tests are available for the property in question, an argument in favour of the chosen test conditions is to be put forward. The test may either be a laboratory test or relevant internal quality tests. Where standardised test methods exist for the properties, these must be used. No specific quality certification of the test laboratory is required.

- ☒ Product data sheet for the Nordic Swan Ecolabelled disposable article, plus a report of the test results.

032 Quality requirement for coffee and tea filters

Coffee and tea filters must be tested for seam strength and filtration properties. The seam strength must not be less than 10 N/m or 0.15 N/15 mm, and it must be measured directly after production in line with ISO 3781. Alternatively, a test that an independent and competent body judges to be an equivalent may be approved. The seam strength can be measured by the filter manufacturer.

- ☒ Test results for seam strength and filtration properties.

3 Quality and regulatory requirements

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

033 Responsible person and organisation

The company shall appoint a responsible person for ensuring the fulfilment of Nordic Ecolabelling's requirements, as well as a contact person for communications with Nordic Ecolabelling.

- ☒ Organisational chart showing who is responsible for the above.

034 Documentation

The licensee must archive the documentation submitted as part of the application (including test reports, documents from subcontractors and so on), or in a similar way maintain information in Nordic Ecolabelling's data system.

- 🔍 Checked on site as necessary.

035 Quality of the disposable article

The licensee must guarantee that the quality of the Nordic Swan Ecolabelled disposable article does not deteriorate during the validity period of the licence.

- ☒ Procedures for dealing with claims/complaints concerning the quality of the Nordic Swan Ecolabelled disposable article.

- 🔍 Overview of received complaints checked on site.

036 Planned changes

Written notice of planned product and market changes that affect Nordic Ecolabelling's requirements must be submitted to Nordic Ecolabelling.

- ☒ Procedures detailing how planned changes in products and markets are handled.

037 Unforeseen non-conformities

Unforeseen non-conformities affecting Nordic Ecolabelling's requirements must be reported in writing to Nordic Ecolabelling and logged.

- ☒ Procedures detailing how unforeseen non-conformities are handled.

038 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled disposable article in the production.

- ☒ Description of/procedures for how the requirement is fulfilled.

039 Take-back system

The Nordic Ecolabelling's Criteria Group decided on the 9 October 2017 to remove this requirement.

Regulations for the Nordic Ecolabelling of products

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

More information on graphical guidelines, regulations and fees can be found at www.nordic-ecolabel.org/regulations/

Follow-up inspections

Nordic Ecolabelling may decide to check whether the disposable article fulfils Nordic Ecolabelling's 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 disposable article 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.

History of the criteria

Nordic Ecolabelling adopted version 4.0 of the criteria for disposables for food on 14 June 2017. The criteria are valid until 30 June 2021.

On the 9 October 2017 Nordic Ecolabelling's Criteria Group decided to remove O39 Take-back system. On 13 June 2018 Nordic Ecolabelling's Criteria Group decided per capsulam to adjust the requirement O19 concerning colourants for paper/paperboard/cardboard. Condensation products of aromatic sulfonic acids with formaldehyde are exempted from the requirement in BfR IX, but most fulfil the requirements in BfRs XXXVI. The new version is called 4.1.

On 18 September 2018, the Nordic Ecolabelling Board adopted a ban on labeling straws, disposable cutlery, plates, stirrers and plastic toothpicks / cocktails made of plastic. On 12 December 2018 Nordic Ecolabelling agreed to add D6 in requirement O18 on silicone treatment, as D6 now is on the Candidate List. At the same time, a reference was made to O18 in requirement O15 that deals with substances on the Candidate list. The new version is called 4.2.

On 19 December 2018 Nordic Ecolabelling decided to prolong the criteria to 30 June 2022. The new version is called 4.3.

On 10 December 2019 Nordic Ecolabelling adjusted the requirement O30 concerning labelling of the product. The requirement is now called O30 Recyclability and labelling, and has an explicit prohibition on labelling with compostable, biodegradable and similar statements, as well as requirements that the product and / or packaging must be labelled with what kind of materials the product consist of and that the product should not be thrown in the nature. On 4 February 2020 Nordic Ecolabelling decided to prolong the criteria to 30 June 2023. The new version is called 4.4.

On 5 May 2020 Nordic Ecolabelling adjusted requirement O19 concerning colourants used for printing, dyeing and/or shading of the product. The requirement can now be fulfilled with reference to Swiss Ordinance 817.023.21 Annex 2 and 10 and colourants used for shading and/or dyeing of paper/paperboard/cardboard can fulfil the requirement with reference to BfR's recommendation XXXVI. Paper and board for food contact, from July 2015 or more recent versions. The new version is called 4.5.

On 1 September 2020 Nordic Ecolabelling adjusted requirement O15 concerning an exemption to BHT up to 2 ppm in water-repellent coatings used on articles made from board. This exemption expires if BHT is included in any of the lists of endocrine disrupting substances mentioned in the requirement during the validity of the criteria. The new version is called 4.6.

On 16 March 2021, Nordic Ecolabelling adjusted requirement O30 for cups labelled in accordance with the EU Directive 2019/904. On 30 November 2021, Nordic Ecolabelling adjusted requirement O5. An alternative requirement for low molecular organochloride compounds in wet strength agents was introduced in the O5. On 14 December 2021 Nordic Ecolabelling decided to prolong the validity of the criteria to the 31 December 2024. Simultaneously, updated requirement for tree species with restricted use in Nordic Swan Ecolabelled products was introduced on requirement O6. The new version is called 4.7.

On 29 November 2022 Nordic Ecolabelling decided to prolong the validity of the criteria to the 31 December 2025. The new version is called 4.8.

New criteria

Relevant topics for the next revision will be:

- Migration test/screening test for chemicals
- Look at the energy requirements for biobased polymers
- Consider the possibilities of increasing the share of certified wood raw material for pulp/paper/paperboard/cardboard
- Additional chemical requirements, eg. to the chemicals in recycled plastic
- Look at waste requirements in light of developments in waste management systems

Terms and definitions

Term	Explanation or definition
Bio-based	Bio-based means that something is derived from biomass. The biomass can have undergone physical, chemical or biological treatment(s). Biomass is a material of biological origin excluding material embedded in geological formations and/or fossilized. For example: (whole or parts of) plants, trees, algae, marine organisms, micro- organisms, animals etc. This also includes secondary raw materials.
Bio-based polymer/plastic:	Polymer/plastic based on renewable raw materials. Please notice that Nordic Ecolabelling do not consider biodegradable/compostable fossil based plastic as bio-based plastic.
Bio-based polymer with full traceability:	Full traceability means that there is traceability on the renewable raw material through the whole production chain, for instance by having a separate production line where it is only used renewable raw materials, so that the finished polymer will only comprise of renewable raw materials.
Bio-based polymer by mass balance method:	With mass balance method means mixing fossil and renewable raw materials in the beginning of the production process with mathematical allocation of the renewable raw material to the finished polymer. This means that there is not full traceability on the renewable raw material through the production plant and that the amount of renewable raw material in the finished polymer will vary.
Individual packaging:	Individual packaging applies to the packaging which may cover each individual article, for example the paper covering chopsticks or the plastic covering cutlery
MSA:	MSA stand for My Swan Account, and is an electronic application tool to be used in the application and approval for pulp/paper/paperboard and cardboard.
Primary packaging:	

Recycled material:	Primary packaging applies to the packaging which the customer gets in hand when purchasing a product, for example the plastic packaging covering 100 disposable forks or the plastic covering 200 coffee filters. Recycled material follows the definition in ISO 14021. For recycled plastic in contact with food the definition used in the Regulation 282/2008 is used, meaning that offcuts and scraps from the production of plastic food contact materials, that has not been in contact with food or otherwise contaminated, is not considered as recycled if it is re-melted on the premises into new products or sold to a third party as part of a quality control system in compliance with the rules for good manufacturing practice laid down in Regulation No 2023/2006.
Renewable raw materials:	
RSPO:	Renewable materials as biological materials that are reproduced in nature within a shorter number of years, like grain or trees.
RTRS:	Roundtable for Sustainable Palm Oil, a certification scheme for palm oil
Secondary raw material:	Roundtable for Responsible Soy, a certification scheme for soy Secondary raw materials are defined here as residual products from other production processes, such as waste products from the food industry, by-products such as straw from grain production, by-products from maize and dried palm leaves. PFAD from palm oil is not counted as a residual/waste product.

Appendix 1 Overview - forms for declaration and documentation

Number of the form	Title	To be completed by
1	General information about the product	The manufacturer of the disposable article
2	Fiber raw material in pulp/paper/paperboard/cardboard	The producer of the pulp
3	Wood, veneers and bamboo	The supplier of the wood raw material
4a	Declaration - Other chemical products	Manufacturer/supplier of the chemical
4b	Declaration - Adhesive	Manufacturer /supplier of the adhesive
4c	Declaration - Colourants/printing inks	Manufacturer /supplier of the colourant/printing ink
4d	Declaration - Silicone coating	Manufacturer /supplier of the silicone coating
4e	Declaration - Coating/impregnation chemicals	Manufacturer /supplier of the coating/impregnation chemical
5	Declaration - Plastics	Manufacturer of the polymer

Form 1 General information about the product

Form for requirement O1, O2 and O3.

Manufacturer of the product:	Brand/trading name of the product:
Type of product (e.g. cup, freezing bag, coffee filter, cutlery):	Total weight in gram, or kg:
Are chemicals used in the converting process (Yes/No): If yes, which (e.g. printing ink, adhesive):	Point of sale (e.g. grocery shops, web-shop, take-away industry):

Does the disposable article, individual packaging*,
cores or other parts** that accompany the disposable
article contain metal?

☐ Yes ☐ No

Does the disposable article contain recycled plastic?

☐ Yes ☐ No

If yes, state the name of the recycling process and name of the manufacturer of the approved recycling process: _____

Does the disposable article contain recycled pulp/paper/
paperboard/cardboard?

☐ Yes ☐ No

Does the disposable article, included individual packaging,
cores and other parts or primary packaging*** contain
PVC or PVDC?

☐ Yes ☐ No

Does the disposable article contain aromas, flavourings, fragrances
or other aroma compounds (e.g. essential oils, plant oils
and plant extracts)?

☐ Yes ☐ No

** individual packaging means the packaging that may be around the individual disposable article, e.g. paper around chopsticks or plastic around cutlery.*

*** core means, e.g. the cardboard tube that plastic film or plastic bags are rolled around. Other parts may include lids for coffee cups and so on.*

****primary packaging applies to the packaging which the customer gets in hand when purchasing a product, for example the plastic packaging covering 100 disposable forks or the plastic covering 200 coffeefilters*

Description of the manufacturing/production process

Give a description of the manufacturing/production process including the converting process for the product. With the production process means statement of the constituent materials and their suppliers, a description of how the finished product are produced (if it consists of several materials), if subcontracters are used e.g. for printing. Table S1 below can be used to state the subcontracters and what kind of production processes they perform.

Table S1 Subcontracters

Name of the subcontracter	Manufacturing/Production place	Contact person	Manufacturing/production process

In table S2 constituent materials in the product and if applicable, individual packaging, cores or other parts that are a part of the disposable article, must be stated. Supplier/manufacturer of the different materials and the weight of material as well as the percentage by weight of the material related to the total weight of product must also be stated. Adhesives and coatings are considered as constituent substances, but not other chemicals like printing inks.

Table S2 Overview of materials, suppliers and amounts

Material	Function	Supplier/manufacturer of the material	Weight (gram, or kg) of the material in the product	Percentage by weight of the material in relation to total weight of the product	Is the material bio-based? Yes or No.
Total weight				100%	

The share of bio-based material in the product: _____

Place and date:	Name of the manufacturer:
Responsible person:	Signature, responsible person:

Form 2 Fiber raw material in pulp/paper/paperboard/cardboard

Form for requirement O6 – Fiber raw material

Pulp producer:	Pulp name:
----------------	------------

Restricted wood varieties

Are tree species listed in the list of restricted tree species* used in the pulp? ☐ Yes ☐ No

* The list of restricted tree species is located on the website:
<http://www.nordic-ecolabel.org/certification/paper-pulp-printing/pulp--paper-producers/forestry-requirements-2020/>

The list consists of tree species listed on:

- a) CITES (Appendices I, II and III)
- b) IUCN red list, categorized as CR, EN and VU
- c) Rainforest Foundation Norway's tree list
- d) Siberian larch (originated in forests outside the EU)

Exemptions

Eucalyptus and Acacia used for pulp and paper production is exempted from the list. Regarding pulp, fibre raw material from eucalyptus/acacia must be a minimum of 70% certified.

Tree species listed on either b), c) or d) may be used if it meets all of the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002
<http://www.intactforests.org/world.map.html>.
- the tree species shall originate from FSC or PEFC certified forest/plantation and shall be covered by a valid FSC/PEFC chain of custody certificates documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method. Tree species grown in plantation shall in addition originate from FSC or PEFC certified forest/plantation, established before 1994.

Nordic Ecolabelling may request further information if there is any doubt concerning specific wood varieties.

If tree species exempted on the list of restricted tree species are used:

Eucalyptus/acacia pulps

Regarding eucalyptus/acacia pulps, state the share of certified fibre raw material in the pulp: _____

If species from the lists b), c) or d) is used:

Please send in the following documentation for the tree species used:

- A valid FSC/PEFC Chain of Custody certificate from the supplier or manufacturer of the Nordic Swan Ecolabelled product of the wood that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that;
 - the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;
 - the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 <http://www.intactforests.org/world.webmap.html>;
 - For plantations the applicant/manufacturer/supplier are required to document that the tree species does not originate from FSC or PEFC certified plantations established after 1994.

Wood species used

State the name (species name) of the wood species/: _____

In the case of multiple wood species per supplier or multiple suppliers, the table below may be used:

Species name	Forest standard (FSC or PEFC)	% from certified wood raw material	% covered by FSC/PEFC's Controlled Wood /Controlled sources

Place and date:	Name of the pulp producer:
Responsible person:	Signature of responsible person:

Form 3 Wood, veneers and bamboo

Form for requirement O9 – Solid wood, veneers and bamboo.

Supplier of the wood raw material/bamboo: _____

Prohibited wood species

Does the product use wood species on the list of prohibited wood

species* (Nordic Ecolabelling – Prohibited Wood)?

☐ Yes ☐ No

**The list of prohibited wood species can be found on the website: www.nordic-ecolabel.org/wood/*

State the version number and date of the list of prohibited wood species used:

Nordic Ecolabelling may request more information if there is any doubt about specific wood species.

Wood species/bamboo used and certified raw material

State the name (species name) of the wood species/bamboo used: _____

In the case of multiple wood types/bamboo per supplier or multiple suppliers, the table below may be used:

Species name	Forest standard (FSC or PEFC)	% from certified wood raw material	% covered by FSC/PEFC's Controlled Wood /Controlled sources

Chain of Custody certification

Does the supplier have Chain of Custody (COC) certification under

the FSC or PEFC scheme?

☐ Yes ☐ No

Attach a copy of the CoC certification for the supplier of the timber/bamboo or state the certificate number: _____

Place and date:	Supplier of the timber/bamboo:
Responsible person:	Signature of responsible person:

Form 4a Declaration – Other chemical products

Form for requirements O13, O14 and O15.

The chemical product's name and area of use: _____

Name of manufacturer of the chemical product: _____

The requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

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 chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg). 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.

O13 Chemical products, classification

Is the chemical product classified in accordance with the table below? ☐ Yes ☐ No

Table S4: Classification of chemical products

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1	H400
	Aquatic Chronic 1-4	H410, H411, H412
Acute toxicity	Acute Tox. 1, 2	H330, H310, H300
	Acute Tox. 3	H331, H301, H311
Specific target organ toxicity	STOT SE 1	H370
	STOT RE 1	H372
Allergenic	Resp. Sens. 1 or	H334
	Skin Sens 1	H317
Carcinogenic	Carc. 1A/1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A/B	H340
	Muta. 2	H341
Reproductive toxicity	Repr. 1A/1B	H360, H361
	Repr. 2	H362

O14 Classification of ingoing substances

Does the chemical product contain substances that have a classification as listed in the table below? ☐ Yes ☐ No

Table S5: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B Carc. 2	H350 H351
Germ cell mutagenicity	Muta. 1A/B Muta. 2	H340 H341
Reproductive toxicity	Repr. 1A/1B Repr. 2	H360, H361 H362

O15 Chemical substances – prohibition list

Are any of the following ingoing substances in the chemical product?

- Substances on the Candidate List* ☐ Yes ☐ No
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)** ☐ Yes ☐ No
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects*** ☐ Yes ☐ No
- Phthalates**** ☐ Yes ☐ No
- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation) ☐ Yes ☐ No
- BHT - butylhydroxytoluene ☐ Yes ☐ No

There is an exemption for BHT up to 2 ppm in water-repelling coatings used on articles made from board. Please note that a plastic layer on the product is not considered a coating. The exemption expires if the substance fulfils one of the following during the validity of the criteria:

- The substance is included on the EU Candidate list* or List 1 on the website www.edlist.org.
- ECHA Endocrine Disruptor Expert Group assesses the substance and considers it an endocrine disruptor <http://echa.europa.eu/sv/ed-assessment>
- The substance is included on List 3 on the website www.edlist.org

- Bisfenol A, F og S ☐ Yes ☐ No
- Halogenated organic compounds ☐ Yes ☐ No
- Antibacterial agents (e.g. nanosilver)***** ☐ Yes ☐ No

* The Candidate List can be found on the ECHA website: <http://echa.europa.eu/candidate-list-table>

** PBT and vPvB in accordance with the criteria in Annex XIII of REACH

*** Substances considered to be potential endocrine disruptors in category 1 or 2, see following link:
http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm

**** The prohibition does not include polyethylene terephthalate (PET).

***** An antibacterial agent is a chemical/product that inhibits or stops growth of microorganisms such as bacteria, fungi or protozoa (single-celled organisms). The requirement does not apply to preservatives used to preserve the chemical product, so-called in-can preservatives.

Attach safety data sheet for the product.

In the event of any changes to the composition of the chemical product, a new declaration of compliance with the requirements must be submitted to Nordic Ecolabelling.

Place and date:	Chemical manufacturers' name:
Responsible person:	Signature of responsible person:

Form 4b Declaration – Adhesive

Form for requirements O13, O14, O15 and O17.

Adhesive's name and area of use: _____

Name of manufacturer of the chemical product: _____

These requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

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 chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg). 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.

O13 Chemical products, classification

Is the adhesive classified in accordance with the table below? ☐ Yes ☐ No

Table S4: Classification of chemical products

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1	H400
	Aquatic Chronic 1-4	H410, H411, H412
Acute toxicity	Acute Tox. 1, 2	H330, H310, H300
	Acute Tox. 3	H331, H301, H311
Specific target organ toxicity	STOT SE 1	H370
	STOT RE 1	H372
Allergenic	Resp. Sens. 1 or	H334
	Skin Sens 1	H317
Carcinogenic	Carc. 1A/1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A/B	H340
	Muta. 2	H341
Reproductive toxicity	Repr. 1A/1B	H360, H361
	Repr. 2	H362

O14 Classification of ingoing substances

Does the chemical product contain substances that have a classification as listed in the table below?¹ ☐ Yes ☐ No

Table S5: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B Carc. 2	H350 H351
Germ cell mutagenicity	Muta. 1A/B Muta. 2	H340 H341
Reproductive toxicity	Repr. 1A/1B Repr. 2	H360, H361 H362

O15 Chemical substances – prohibition list

Are any of the following ingoing substances in the adhesive?

- Substances on the Candidate List* ☐ Yes ☐ No
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)** ☐ Yes ☐ No
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects*** ☐ Yes ☐ No
- Phthalates**** ☐ Yes ☐ No
- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation) ☐ Yes ☐ No
- BHT - butylhydroxytoluene ☐ Yes ☐ No

There is an exemption for BHT up to 2 ppm in water-repelling coatings used on articles made from board. Please note that a plastic layer on the product is not considered a coating. The exemption expires if the substance fulfils one of the following during the validity of the criteria:

- The substance is included on the EU Candidate list* or List 1 on the website www.edlist.org.
- ECHA Endocrine Disruptor Expert Group assesses the substance and considers it an endocrine disruptor <http://echa.europa.eu/sv/ed-assessment>
- The substance is included on List 3 on the website www.edlist.org

- Bisfenol A, F og S ☐ Yes ☐ No
- Halogenated organic compounds ☐ Yes ☐ No
- Antibacterial agents (e.g. nanosilver)***** ☐ Yes ☐ No

* The Candidate List can be found on the ECHA website: <http://echa.europa.eu/candidate-list-table>

** PBT and vPvB in accordance with the criteria in Annex XIII of REACH

*** Substances considered to be potential endocrine disruptors in category 1 or 2, see following link:
http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm

**** The prohibition does not include polyethylene terephthalate (PET).

***** An antibacterial agent is a chemical/product that inhibits or stops growth of microorganisms such as bacteria, fungi or protozoa (single-celled organisms). The requirement does not apply to preservatives used to preserve the chemical product, so-called in-can preservatives.

¹ An exception is made for formaldehyde in newly produced polymer, see O17 below.

O17 Adhesive – content of chemical substances

Does the adhesive contain ethylene glycol ethers? ☐ Yes ☐ No

Does the adhesive contain rosin? ☐ Yes ☐ No

Is the level of formaldehyde generated during the production process no more than 250 ppm (0.025% by weight), measured in newly produced polymer dispersion*? ☐ Yes ☐ No

Is the content of free formaldehyde in hardened adhesive no more than 10 ppm (0.010% by weight)**? ☐ Yes ☐ No

* Measured using the VdL-RL 03 method "In-can concentration of formaldehyde determined by the acetyl-acetone method" or the Merckoquant method (see Appendix X of RAL-UZ 102), or some other equivalent method.

** Measured using the Merckoquant method (see Appendix X of RAL-UZ 102), or some other equivalent method.

Attach test report for formaldehyde.

Attach safety data sheet for the adhesive.

In the event of any changes to the composition of the chemical product, a new declaration of compliance with the requirements must be submitted to Nordic Ecolabelling.

Place and date:	Adhesive manufacturer's name:
Responsible person:	Signature of responsible person:

Form 4c Declaration – Colourants/printing inks

Form for requirement O13, O14, O15 and O19.

Name of dye/ink and area of use: _____

Name of manufacturer of the dye/ink product: _____

These requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

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 chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg). 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.

O13 Chemical products, classification

Is the colourant/printing ink classified in accordance with ☐ Yes ☐ No the table below?

Table S4: Classification of chemical products

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1	H400
	Aquatic Chronic 1-4	H410, H411, H412
Acute toxicity	Acute Tox. 1, 2	H330, H310, H300
	Acute Tox. 3	H331, H301, H311
Specific target organ toxicity	STOT SE 1	H370
	STOT RE 1	H372
Allergenic	Resp. Sens. 1 or	H334
	Skin Sens 1	H317
Carcinogenic	Carc. 1A/1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A/B	H340
	Muta. 2	H341
Reproductive toxicity	Repr. 1A/1B	H360, H361
	Repr. 2	H362

O14 Classification of ingoing substances

Does the chemical product contain substances that have ☐ Yes ☐ No a classification as listed in the table below?

Table S5: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A/B	H340
	Muta. 2	H341
Reproductive toxicity	Repr. 1A/1B	H360, H361
	Repr. 2	H362

O15 Chemical substances – prohibition list

Are any of the following ingoing substances in the colourant/printing ink?

- Substances on the Candidate List* ☐ Yes ☐ No
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)** ☐ Yes ☐ No
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects*** ☐ Yes ☐ No
- Phthalates**** ☐ Yes ☐ No
- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation) ☐ Yes ☐ No
- BHT - butylhydroxytoluene ☐ Yes ☐ No

There is an exemption for BHT up to 2 ppm in water-repelling coatings used on articles made from board. Please note that a plastic layer on the product is not considered a coating. The exemption expires if the substance fulfils one of the following during the validity of the criteria:

- The substance is included on the EU Candidate list* or List 1 on the website www.edlist.org.
- ECHA Endocrine Disruptor Expert Group assesses the substance and considers it an endocrine disruptor <http://echa.europa.eu/sv/ed-assessment>

- The substance is included on List 3 on the website www.edlist.org

- | | | |
|---|------------------------------|-----------------------------|
| • Bisfenol A, F og S | ☐ Yes | ☐ No |
| • Halogenated organic compounds ¹ | ☐ Yes | ☐ No |
| • Antibacterial agents (e.g. nanosilver)***** | ☐ Yes | ☐ No |

* The Candidate List can be found on the ECHA website:
<http://echa.europa.eu/candidate-list-table>

** PBT and vPvB in accordance with the criteria in Annex XIII of REACH

*** Substances considered to be potential endocrine disruptors in category 1 or 2, see following link:
http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm

**** The prohibition does not include polyethylene terephthalate (PET).

***** An antibacterial agent is a chemical/product that inhibits or stops growth of microorganisms such as bacteria, fungi or protozoa (single-celled organisms). The requirement does not apply to preservatives used to preserve the chemical product, so-called in-can preservatives.

¹ An exception is made for halogenated organic pigments that meet the European Council's "Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food", point 2.5.

019 Colourants for printing and dyeing

Halogenated organic pigments must meet the European Council's "Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food". Is this fulfilled? ☐ Yes ☐ No

Do the colourants meet BfR's (Federal Institute for Risk Assessment) recommendations: "IX. Colorants for Plastics and other Polymers Used in Commodities"* or Swiss Ordinance 817.023.21 Annex 2 and 10? ☐ Yes ☐ No

Do the colourants used for dyeing and/or shading of paper/paperboard/cardboard meet BfR's recommendation XXXVI. Paper and board for food contact, from July 2015 or more recent versions? ☐ Yes ☐ No

* In case of colourants used in paper/paperboard/cardboard, condensation products of aromatic sulfonic acids with formaldehyde are exempted from the requirement in BfR IX, but must fulfil the requirements in BfRs XXXVI.

If relevant, do the colourants meet the requirements to condensation products of aromatic sulfonic acids with formaldehyde in BfR XXXVI? ☐ Yes ☐ No

Attach safety data sheet.

In the event of any changes to the composition of the chemical product, a new declaration of compliance with the requirements must be submitted to Nordic Ecolabelling.

Place and date:	Colourant manufacturer's name:
Responsible person:	Signature of responsible person:

Form 4d Declaration – Silicone coating

Form for requirement O18.

Silicone product's name and area of use: _____

Name of silicone product's manufacturer: _____

The requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

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 chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg). 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.

O18 Coatings and impregnations – silicone-based

Is the product solvent-based? ☐ Yes ☐ No

Are organotin catalysts used in the production of the silicone polymer? ☐ Yes ☐ No

Are octamethylcyclotetrasiloxane, D4 (CAS 556-67-2), decamethylcyclopentasiloxane, D5, (CAS 541-02-6) and dodecamethyl cyclohexasiloxane, D6, (CAS 540-97-6) present? ☐ Yes ☐ No

State the amount of D4, D5 and D6: _____

The requirement does not apply to D4, D5 and D6 contained as impurities in the finished commercial product in concentrations below 800 ppm (0.08% by weight). Finished commercial product refers to the silicone emulsion's coating bath.

Nordic Swan Ecolabelled food paper and baking paper meet the requirement.

Attach safety data sheet for the product.

In the event of any changes to the composition of the chemical product, a new declaration of compliance with the requirements must be submitted to Nordic Ecolabelling.

Place and date:	Chemical manufacturer's name:
Responsible person:	Signature of responsible person:

Form 4e Declaration – Coating/impregnation chemicals

Form for requirement O13, O14, O15 and O18.

Product's name and area of use: _____

Name of product's manufacturer: _____

The requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

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 chemical product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg). 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.

O13 Chemical products, classification

Is the coating/impregnation chemical classified in accordance ☐ Yes ☐ No with the table below?

Table S4: Classification of chemical products

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1-4	H400 H410, H411, H412
Acute toxicity	Acute Tox. 1, 2 Acute Tox. 3	H330, H310, H300 H331, H301, H311
Specific target organ toxicity	STOT SE 1 STOT RE 1	H370 H372
Allergenic	Resp. Sens. 1 or Skin Sens 1	H334 H317
Carcinogenic	Carc. 1A/1B Carc. 2	H350 H351
Germ cell mutagenicity	Muta. 1A/B Muta. 2	H340 H341
Reproductive toxicity	Repr. 1A/1B Repr. 2	H360, H361 H362

O14 Classification of ingoing substances

Does the chemical product contain substances that have a classification as listed in the table below? ☐ Yes ☐ No

Table S5: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B Carc. 2	H350 H351
Germ cell mutagenicity	Muta. 1A/B Muta. 2	H340 H341
Reproductive toxicity	Repr. 1A/1B Repr. 2	H360, H361 H362

O15 Chemical substances – prohibition list

Are any of the following ingoing substances in the chemical product?

- Substances on the Candidate List* ☐ Yes ☐ No
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)** ☐ Yes ☐ No
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects*** ☐ Yes ☐ No
- Phthalates**** ☐ Yes ☐ No
- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation) ☐ Yes ☐ No
- BHT - butylhydroxytoluene ☐ Yes ☐ No

There is an exemption for BHT up to 2 ppm in water-repelling coatings used on articles made from board. Please note that a plastic layer on the product is not considered a coating. The exemption expires if the substance fulfils one of the following during the validity of the criteria:

- The substance is included on the EU Candidate list* or List 1 on the website www.edlist.org.
- ECHA Endocrine Disruptor Expert Group assesses the substance and considers it an endocrine disruptor <http://echa.europa.eu/sv/ed-assessment>
- The substance is included on List 3 on the website www.edlist.org

- Bisfenol A, F og S ☐ Yes ☐ No
- Halogenated organic compounds ☐ Yes ☐ No
- Antibacterial agents (e.g. nanosilver)***** ☐ Yes ☐ No

* The Candidate List can be found on the ECHA website: <http://echa.europa.eu/candidate-list-table>

** PBT and vPvB in accordance with the criteria in Annex XIII of REACH

*** Substances considered to be potential endocrine disruptors in category 1 or 2, see following link:
http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm

**** The prohibition does not include polyethylene terephthalate (PET).

***** An antibacterial agent is a chemical/product that inhibits or stops growth of microorganisms such as bacteria, fungi or protozoa (single-celled organisms). The requirement does not apply to preservatives used to preserve the chemical product, so-called in-can preservatives.

018 Coatings and impregnations

Does the coating/impregnation chemical contain chromium? ☐ Yes ☐ No

Does the coating/impregnation chemical contain fluorinated compounds? ☐ Yes ☐ No

Nordic Swan Ecolabelled food paper and baking paper meet the requirement.

Attach safety data sheet for the product.

In the event of any changes to the composition of the chemical product, a new declaration of compliance with the requirements must be submitted to Nordic Ecolabelling.

Place and date:	Chemical manufacturer's name:
Responsible person:	Signature of responsible person:

Form 5 Declaration – Plastics

Form for requirements O21 and O22.

To be completed by the manufacturer of the polymer/plastic material.

Name of plastic material and type of polymer: _____

Name of polymer/plastic manufacturer: _____

O21 Additives in plastic

Have chemicals such as colourants, plasticisers, antioxidants and fillers (inorganic fillers are exempt) been added to the polymer/plastic material? ☐ Yes ☐ No

If yes, the additive in the polymer/plastic material needs to meet the chemical requirements O13, O14, O15.

- For colourants, use form 4c.
- For other additives, use form 4a.

Attach a safety data sheet for the added chemical.

O22 Residual monomers in plastic

Does the polymer/plastic material contain max 100 ppm residual monomers with a classification listed in Table S6 below? ☐ Yes ☐ No

Table S6: Classification of CMR substances

Classification under CLP Regulation (EC) No 1272/2008		
Hazard class	Category	Hazard code
Carcinogenic	Carc. 1A/1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A/B	H340
	Muta. 2	H341
Reproductive toxicity	Repr. 1A/1B	H360, H361
	Repr. 2	H362

The amount can be maximum 100 ppm for each classification.

Content of residual monomers must be measured for newly produced polymer.

Place and date:	Polymer/plastic manufacturer's name:
Responsible person:	Signature of responsible person:

Appendix 2 Guidelines for standard, renewable commodities

Nordic Ecolabelling sets requirements on the standards to which cultivated commodities are certified. These requirements are described below. Each individual national sustainability standard and each certification system is reviewed by Nordic Ecolabelling to ensure that the requirements are fulfilled.

Requirements on standards

- The standard must balance economic, ecological and social interests and comply with the Rio Declaration's principles, Agenda 21 and the Forest Principles, and respect relevant international conventions and agreements.
- The standard must contain absolute requirements and promote and contribute towards sustainable cultivation. Nordic Ecolabelling places special emphasis on the standard including effective requirements and that the requirements protect the biodiversity.
- The standard must be available to the general public. The standard must have been developed in an open process in which stakeholders with ecological, economic and social interests have been invited to participate.

The requirements related to the sustainable standards are formulated as process requirements. The basis is that if stakeholders agree on the economic, social and environmental aspects of the standard, this safeguards an acceptable requirement level.

If a sustainability standard is developed or approved by stakeholders with ecological, economic and social interests, the standard may maintain an acceptable standard. Accordingly, Nordic Ecolabelling requires that the standard balances these three interests and that representatives from all three areas are invited to participate in development of the sustainable standard.

The standard must set absolute requirements that must be fulfilled for the certification. This ensures that the agriculture management fulfils an acceptable level regarding the environment. Since Nordic Ecolabelling requires that the standard must promote and contribute towards sustainable cultivation, the standard must be assessed and revised regularly for process improvement and successively reduce environmental impact.

Requirements on certification system

- The certification system must be open, have significant national or international credibility and be able to verify that the requirements in the sustainable standard are fulfilled.

Requirements on certification body

- The certification body must be independent, credible and capable of verifying that the requirements of the standard have been fulfilled. The certification body must also be able to communicate the results and to facilitate the effective implementation of the standard.

The certification system must be designed to verify that the requirements of the standard are fulfilled. The method used for certification must be repeatable and applicable so the requirements can be verified. Certification must be in respect to a specific sustainable standard. There must be inspection prior to certification.

Requirements on Chain of Custody (CoC) certification

- Chain of Custody certification must be issued by an accredited, competent third party.
- The system shall stipulate requirements regarding the chain of custody that assure traceability, documentation and controls throughout the production chain.

Documentation

Copy of cultivation standard, name, address and telephone number to the organisation who has worked out the standard and audit rapports.

References to persons who represents stakeholders with ecological, economic and social interests who have been invited to participate.

Nordic Ecolabelling may request further documents to examine whether the requirements of the standard and certification system in question can be approved.

Appendix 3 Analysis and test laboratories

Choice of analysis laboratory

Testing must be performed in a competent manner. The test laboratory must be impartial and competent. The ecolabelling organisation will ensure that the test laboratory fulfils the general requirements in the standard EN ISO/IEC 17025:2005 or ISO-IEC Guide 25 or has official GLP approval. The applicant is responsible for documentation and analysis fees. The producer's own laboratory may be approved for analysis and testing if the authorities check or monitor the sampling and analysis process or if the producer has a official GLP approval. The producer must have a quality assurance system in place that encompasses sampling and analysis and be certified to ISO 9001 and 13485 (or corresponding system). In the case of chemicals, scientifically tested literature references or a product safety data sheet containing data on ecotoxicity and the test method used may be used to verify that the chemicals fulfil the requirements.

Formaldehyde in adhesives

The content of formaldehyde in adhesives can be determined with an appropriate method, e.g. derivatisation and analysis with GC-MSD or HPLC with UV detection. A relevant standard method could be ISO EN 16000-10:2006, which is used e.g. for formaldehyde in building products (adhesives included).

Content of chemical substances in plastic

Analysis of the content of substances like phthalates, bisphenol A and styrene must be done with XRF (X-ray fluorescence), ICP-MS (inductively coupled plasma - mass spectrometry), SEM (scanning electron microscopy) with EDS (Energy-dispersive X-ray spectroscopy), FTIR (Fourier transform infrared spectroscopy) or equivalent methods. The test results may be submitted by the plastic producer or by a later part of the supply chain. The test must be performed on the "clean" material before adding of any glue or other additives. The method of analysis and the detection limit must be stated.

Appendix 4 Information on properties

Product datasheets for the disposable article must as a minimum contain the following information.

Name of producer: (the supplier of the disposable article)

Product name:

Product number:

Material/combination of materials: (description of the primary materials in the product)

Stable in the following temperature range:

Min. temperature: (e.g. 0 °C) _____

Max. temperature: (e.g. +40 °C) _____

Grease proof: (yes/no)

Restrictions: (e.g. not suitable for contact with moderately and highly acidic foodstuffs (pH<4,5))

Suitable for freezer storage: (yes/no)

Suitable for refrigeration: (yes/no)

Suitable for heat retention (thermal effect) (yes/no)

Suitable for liquids: (yes/no)

Suitable for heating in oven: (yes/no)

Suitable for microwave oven: (yes/no)

Storage: (e.g. dry and cool (10-25 °C). Keep out of direct sunlight)

Other relevant information on use: