

Nordic Ecolabelling for
Paper Products – Chemical Module



Version 3.0 • date – date

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AI002 Paper products – Chemical Module, 09 October 2019

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:

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The Nordic Ecolabelling Modular System for Paper Products

Nordic Swan Ecolabelled paper products may be made of cellulosic fibres from wood, plants and/or recycled fibre. The criteria for Nordic Ecolabelling of paper products encompass a wide range of requirements, most of which relate to pulp and paper production. Since the raw materials, chemicals and manufacturing processes in pulp and paper production are similar, Nordic Ecolabelling has introduced a so-called modular system for paper products.

The Basic Module contains general requirements concerning forestry management, emissions, energy use and waste disposal with regard to pulp and paper production.

The Chemical Module contains general requirements with regard to the use of chemicals in the manufacture of pulp and paper.

Supplementary Modules contain those requirements, with regard to specific paper products, which must be fulfilled in order to grant a licence for the products to carry the Nordic Swan Ecolabel. The requirements' levels in a Supplementary Module may be more stringent or more lenient than those of the Basic or Chemical Module. If the requirements in the modules differ, the requirement levels specified in the applicable Supplementary Module are to be applied.

For a product to be granted a licence to carry the Nordic Swan Ecolabel, the relevant requirements in the Basic Module and Chemical Module, in addition to the requirements in the applicable Supplementary Module, must be fulfilled.

Version 3 of the modular system includes the following documents:

- Basic Module (Paper Products – Basic Module)
- Chemical Module (Paper Products – Chemical Module)

And following Supplementary Modules

- Copy and Printing Paper
- Grease-Proof Paper
- Tissue Paper

Other Nordic Swan Ecolabel criteria may refer to the modular system, such as the Criteria for Disposables for Food and the Criteria for Sanitary Products.

What is Nordic Swan Ecolabelled paper?

The Nordic Swan Ecolabel on a paper product signifies that the product meets strict environmental requirements. This means that the paper has minimal environmental impact throughout its lifecycle.

Paper assessed by Nordic Ecolabelling:

- Is either made of virgin fibres or and/or recycled fibres. At least 70% of fibres used in paper must come from sustainably managed forests or be recycled.
- Meets strict requirements concerning chemicals that are hazardous to health and harmful to the environment.
- Is manufactured in an energy efficient way.
- Generates less emissions to air and water during production.

Documentation

Each requirement is marked with the letter O and a number. Each requirement is followed by a symbol that describes how the requirement shall be documented.

To document the requirements, the manufacturer or supplier shall use Nordic Ecolabelling's web-based application tool My Swan Account (MSA). My Swan Account can be accessed via the internet addresses shown on page 2 of this document or via <http://www.nordic-ecolabel.org/portals/paper/my-swan-account1/>

In the case documentation is required in the form of a safety data sheet, such documentation must comply with applicable legislation in the country of application, e.g. Annex II of REACH (Council Regulation 1907/2006/EEC) for each particular production chemical.

All information submitted to Nordic Ecolabelling will be treated confidentially.

Definitions

Term	Explanation or definition
Azo dyes	Azo dyes, which by reductive cleavage of one or more azo groups may release one or more of the aromatic amines listed in Regulation (EC) No 1907/2006 Annex XVII, Appendix 8.
Chemical	Please see "Production chemical".
Chemical product	Please see "Production chemical".
Dye	Colourant substance that is dispersed in a medium in which it is soluble. Used as colourant in dye products. This definition is based on EuPIA:s definition. ¹

¹https://www.eupia.org/fileadmin/user_upload/181031_Standard_Glossary_of_Food_Contact_Materials_and_Coatings_Terms.pdf

Dye product	Product sold by a manufacturer that is used for dyeing or printing.
External water treatment	External water treatment plant is the plant on site where waste water is treated before discharge to recipient. This is not to be mixed with wastewater treatment done by an external part such as municipal wastewater treatment plant. See also internal water treatment.
Impurities	<p>Residuals, pollutants, contaminants etc. from production, including production of raw materials that remain in the chemical product in concentrations less than 100,0 ppm (0,01000 w-%, 100,0 mg/kg).</p> <p>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.</p>
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 and arylamine) are also regarded as ingoing substances.
Internal water treatment	Internal water treatment means processes on site where process water is treated between different processes and thereafter water is recycled within the production plant. See also external water treatment.
Pigment	Organic or inorganic substances dispersed in a medium, in which they are insoluble. They are used as colourants in dye products. This definition is based on EuPIA:s definition. (See footnote 1.)
Production chemical	The term production chemical, as used in this document, is a collective term for chemical products used during production. It can refer to chemical additives, auxiliary chemicals and process chemicals. The term is further used to refer to starch, filler material and so on.
Raw material	In the Chemical Module, raw material refers to ingoing raw materials in production chemicals.
VOC	Volatile organic compounds are defined in accordance with the European Commission's directive 1999/13/EC on the limitation of emissions of volatile organic compounds with vapor pressure > 0.01 kPa at 20°C.

1 Chemical requirements

The chemical requirements apply to **production chemicals** used in the production of pulp and paper and to **chemicals used in the conversion of the paper**. The requirements are applied regardless of the manufacturing method.

Many production chemicals are used in the manufacture of pulp and paper products. These may be categorised into process chemicals for pulp production as well as chemical additives and auxiliary chemicals for paper production. The term “production chemicals”, as used in this document, is a collective term for products used during production of pulp and paper. It can refer to chemical additives, auxiliary chemicals and process chemicals. The term is further used to refer to starch, filler material and so on.

The requirements do not apply to chemicals that are used for:

- treatment of raw water
- energy production
- maintenance work that is defined as maintenance of pulp and paper production equipment during production. For example, the cleaning of wires, or of cooking and bleaching equipment, is regarded as maintenance of pulp and paper production equipment, whereas felt washing agents used continuously in production are regarded as production chemicals.
- wastewater treatment lying outside the control of the pulp or paper manufacturer, that is wastewater treatment done by an external part such as municipal wastewater treatment plants. Chemicals used in external water treatment plants operated by the pulp or paper manufacturer are not exempted from the requirements, see also external/internal water treatment in the list of definitions.
- trials in pulp and paper manufacturing for no longer than 10 days during a period of, at most, two months.

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

- **Ingoing substances:** All substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde and arylamine) are also regarded as ingoing substances.
- **Impurities:** Residuals, pollutants, contaminants etc. from production, including production of raw materials that remain in the chemical product in concentrations less than 100,0 ppm (0,01000 w-%, 100,0 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.

The chemical manufacturer or supplier shall demonstrate compliance with the requirements in the Chemical Module. Fulfilment of the requirements is documented primarily with the aid of declarations or test results from chemical

manufacturers/suppliers. Declarations are to be submitted with the aid of the web-based application tool.

Nordic Ecolabelling has the right to request chemical manufacturers/suppliers for information on the complete chemical composition of a production chemical when necessary, in order to check the contents of the product.

The chemical supplier shall inform Nordic Ecolabelling regarding modifications to the composition of the production chemical or any substitutions of raw materials that might occur before the next revision of the Chemical Module.

1.1 Requirements applicable to all production chemicals

The Nordic Ecolabelling's general requirements O1 and O2 are applied to all production chemicals used in production of pulp and paper. However, they do not apply to the following bulk chemicals:

- Hydrogen peroxide
- Burnt lime
- Oxygen
- Magnesium sulphate
- Sodium hydroxide
- Sulphuric acid
- Chlorine dioxide
- Sodium chlorate
- Sodium bisulphate (sodium hydrogen sulphate)
- Phosphoric acid
- Urea
- Sodium bisulphite
- Talc
- Methanol
- Ozone or mineral chemicals such as kaoline
- Clay or calcium carbonate used as fillers or coating on paper.

The chemical manufacturer or supplier shall demonstrate compliance with the requirements by duly completing each declaration in the web-based application tool.

O1 Classification of production chemicals

Production chemicals classified according to the risk phrases indicated in the table below must not be used in pulp and paper manufacture.

Table 1 Classification of production chemicals

Classification under CLP Regulation (EC) No 1272/2008		
Classification	Hazard Class and Category Code	Hazard statement
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1–3	H400 H410, H411, H412
Hazardous to the ozone layer	Ozone	H420
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
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 classifications concern all classification variants. For example, H350 also covers classification H350i.


This requirement applies to production chemicals and not ingoing substances, see Definitions. The manufacturer of the chemical product is responsible for its' classification.


Exemptions to the requirement are the following:


- Biocidal products. Chemical products classified as Aquatic Chronic 3 H412 are also exempted if classification is due to the presence of in-can preservatives.
- Peracetic acid (bleaching agent)
- DTPA and its salts.
- Cationic polymers, if charge is the reason for classification.

Dye products classified as environmentally hazardous and/or STOT RE 1 H372 are exempted from the requirement if:

- classification of the dye product is due to the dye itself
and
- dyes are fixed to fibres > 98%. The degree of fixation is calculated as the total retention of dyes on the fibres during the process.

 The chemical manufacturer/supplier shall demonstrate compliance with the requirement by duly completing the declaration in web-based application tool.

 The chemical manufacturer/supplier shall enclose safety data sheet in accordance with the current statutory requirement in the country of application, e.g. Annex II to REACH (Council Regulation (EC) no. 1907/2006) for all chemical products.

 If the exemption to dye products is applied, the chemical manufacturer/supplier and pulp/paper producer must verify how the requirements for the exemption are met by duly completing and signing Appendix 7 (chemical manufacturer/supplier) and Appendix 10 (pulp/paper producer) in the web-based application tool.

O2 Prohibited substances

The following substances must not be ingoing substances in chemical products used in the production of pulp and paper.

Concerning residual monomers, please note that their quantity shall be measured as dry substance per monomer on newly produced polymer dispersion/powder.

- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation)
- Phthalates
- Bisphenol A, F and S
- Substances on the Candidate List*

An exemption to the requirement is made for acrylamide (CAS number: 79-06-1), which must not exceed 700 ppm/dry substance, measured on newly produced polymer dispersion/powder.

- CMR substances – Carcinogenic, Germ cell mutagenicity, Reproductive toxicity category 1 A/B or category 2
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Substances that are considered to be potential endocrine disruptors in category 1 or 2, according to official lists within the EU***

** 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*

**** The EU's report on endocrine disruptors can be read in full at*

http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf Appendix L, page 238 onwards)



The chemical manufacturer/supplier shall demonstrate compliance with the requirement by duly completing the declaration in Appendix 2 in the web-based application tool.

1.2 Requirements applicable to specific production chemicals

Requirements applicable to specific chemicals are set with respect to the following chemical products. Forms that are equivalent to declarations in this document are available in the web-based application tool:

- Deinking chemicals (Appendix 3)
- Biocidal products and slimicides (Appendix 4)
- Wet strength agents (Appendix 5)
- Foam inhibitors/defoamers (Appendix 6)
- Dye products (Appendix 7)
- Adhesives (Appendix 8)
- Starch products, GMO (Appendix 9)
- Declaration from the pulp and paper manufacturer (Appendix 10)

03 Deinking chemicals

All surfactants used in deinking processes must be readily or inherently biodegradable.

Surfactants based on silicone derivatives are exempted from this requirement if sludge from the deinking process is incinerated.



The chemical manufacturer/supplier shall report the composition of the production chemical regarding surfactants, stating complete names, CAS no. and amounts in accordance with Appendix 3 in the web-based application tool.

The result of testing for biodegradation must be reported e.g. in a safety data sheet.

- ☞ If the exemption to silicone derivatives is applied, the **pulp/paper producer** shall certify how the requirements for the exemption are met by duly completing and signing Appendix 10 in the web-based application tool.

O4 Biocidal products and slimicides

Active organic substances in biocidal products used for countering slime-forming organisms in pulp and paper production must be approved or under evaluation according to regulation (EU) No 528/2012 and they shall not be bioaccumulative or potentially bioaccumulative.

Biocides/slimicides are deemed not to be bioaccumulative if $BCF < 500$ or $\log K_{ow} < 4$. If both values are available, the value for the highest measured BCF is to be used, see Analyses and Test Methods in Appendix 1.

- ☞ The chemical manufacturer/supplier shall report the composition of the production chemical regarding biocides, stating their complete name and CAS no. in accordance with Appendix 4 in the web-based application tool.
- ☞ Test results on the bioaccumulation potential of the active substances must be reported e.g. in safety data sheets.

O5 Wet strength agents

Wet strength agents must not contain more than 100 ppm (0.01%) in total of the low molecular organochloride compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) and chloropropanediol (CPD) – calculated on the basis of the dry matter content.

- ☞ The manufacturer/supplier of organochloride wet strength agents shall certify that the requirement is fulfilled by duly completing and signing Appendix 5 in the web-based application tool.

O6 Foam inhibitors and defoamers

None of the ingoing substances in the foam inhibitor/defoamer that have a foam inhibiting or foam retarding effect may be classified as environmentally hazardous in accordance with Table 1 in O1.

As an alternative, 95 w% of the ingoing substances in the foam inhibitor/defoamer with a foam inhibiting or foam retarding effect must be either readily or inherently biodegradable.

Foam inhibitors/defoamers that are destroyed in chemicals recycling are exempted from this requirement.

- ☞ The chemical manufacturer/supplier of a foam inhibitor/defoamer shall certify that the product does not contain components that are classified as environmentally hazardous in accordance with the requirement and complete Appendix 6 in the web-based application tool or
- ☞ If foam inhibitors/defoamers consist of a mixture of substances, each substance shall be stated with its full name, CAS no. and concentration. The result of testing for biodegradability of the individual substances shall be reported for example in safety data sheets and with a completed Appendix 6 in the web-based application tool.

- 🔗 If the exemption to foam inhibitors/defoamers destroyed in chemicals recycling is applied, **pulp/paper producer** shall certify how the requirements for the exemption are met by duly completing and signing Appendix 4 in the web-based application tool.

07 Dye products – metals

Dyes or pigments in dye products that are based on aluminium, silver, arsenic, barium, cadmium, cobalt, chromium, copper, mercury, manganese, nickel, lead, selenium, antimony, tin or zinc must not be used for colouring or printing.

Copper in phthalocyanine pigment and aluminium in aluminosilicates are exempted from this requirement.

The levels of ionic impurities in the dye products used must not exceed the following limits:

- Antimony: 50 ppm
- Arsenic: 50 ppm
- Barium: 100 ppm
- Cadmium: 20 ppm
- Chromium: 100 ppm
- Cobalt: 500 ppm
- Copper: 250 ppm
- Lead: 100 ppm
- Mercury: 4 ppm
- Nickel: 200 ppm
- Selenium: 20 ppm
- Silver, 100 ppm
- Tin: 250 ppm
- Zinc: 1 500 ppm.

- 🔗 The manufacturer/supplier shall demonstrate compliance with the requirement by duly completing and signing Appendix 7 in the web-based application tool.

08 Dye products – amines

Azo dyes, which by reductive cleavage of one or more azo groups may release one or more of the aromatic amines listed in Regulation (EC) No 1907/2006 Annex XVII, Appendix 8, must not be used.

- 🔗 The producer/supplier shall demonstrate compliance with the requirement by duly completing and signing Appendix 7 in the web-based application tool.

09 Adhesives

Adhesives used in the production, conversion or packaging of the product shall not contain:

- Halogenated volatile organic compounds.
- Ethylene glycol ethers classified as any of the classifications listed in Table 1 in requirement O1.

- 🔗 The chemical manufacturer/supplier shall give an account of the composition and classification of the production chemical by duly completing and signing Appendix 8 in the web-based application tool.

O10 Starch products – GMO

The use in production of starch products that derive from genetically modified organisms (GMOs), e.g. certain potato and maize starches, is prohibited.



The chemical manufacturer/supplier of the starch product shall demonstrate compliance with the requirement by duly completing and signing Appendix 9 in the web-based application tool.

Appendix 1 Analyses and test methods

Aerobic biodegradability

Test methods 301 A-F or 310 in the OECD Guidelines for the Testing of Chemicals (ISBN 92-64-1222144) shall be used to test ready biodegradability. As an alternative, ISO 10708 (BODIS test) can be used.

Test methods 302 A-C in the OECD Guidelines for the Testing of Chemicals shall be used to test inherent biodegradability.

Bioaccumulation

A substance is considered bioaccumulating if tested for bioaccumulation on fish according to method OECD 305 A-E and its bioconcentration factor (BCF) is >500 . If no BCF value has been determined, a substance is considered bioaccumulating if its logKow value ≥ 4.0 according to method 107, 117 or 123 in the OECD Guidelines for the Testing of Chemicals (ISBN 92-64-1222144) or equivalent method, unless proven otherwise. If the maximum measured BCF ≤ 500 , the substance is not considered bioaccumulating even if logKow ≥ 4.0 .

OECDs test method 107 cannot be used for surface-active substances, which are both fat and water soluble. Based on current knowledge, for such substances it must be shown to a high degree of certainty that the substance itself and its decomposition products do not pose a long-term hazard to aquatic organisms.

Data models (such as BIOWIN) are permitted but if the results of an approximation are close to the set limit values or if Nordic Ecolabelling holds contradictory information, more reliable information is required.

Aquatic toxicity

Acute aquatic toxicity is tested with the aid of test methods nos. 201, 202 and 203 in OECD guidelines for testing of chemicals (ISBN 92-64-1222144) or equivalent test methods.

For chronic aquatic toxicity test methods nos. 210, 211, 215 and 229 in the OECD Guideline for the Testing of Chemicals (ISBN 92-64-1222144) or equivalent test methods are used. OECD 201 can be used as chronic test if chronic endpoints are chosen.

Appendix 2 Prohibited substances (O2)

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

Product name
Function
Manufacturer/supplier

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

- **Ingoing substances:** All substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde and arylamine) are also regarded as ingoing substances.
- **Impurities:** Residuals, pollutants, contaminants etc. from production, including production of raw materials that remain in the chemical product in concentrations less than 100,0 ppm (0,01000 w-%, 100,0 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.

O2: Does the product contain any of the following substances?			
Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Phthalates	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Bisphenol A, F and/or S	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Acrylamide (CAS 79-06-1) Note: An exemption to the requirement is made for acrylamide (CAS number: 79-06-1), which must not exceed 700 ppm/dry substance, measured on newly produced polymer dispersion/powder.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances on the Candidate List (SVHC), ECHA webpage: http://echa.europa.eu/candidate-list-table	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
CMR substances – Carcinogenic, Germ cell mutagenicity, Reproductive toxicity category 1 A/B or category 2.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Substances that have been judged in the EU to be PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative), in accordance with the criteria in Annex XIII of REACH.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>

Substances considered to be (potential) category 1 or 2 endocrine disruptors accordance with the European Union's reports concerning endocrine disruptors.	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
The EU's reports on potential endocrine disruptors can be read in their entirety at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf , see appendix page 238 onwards)				

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

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 3 Deinking chemicals (O3)

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

Product name
Function
Manufacturer/supplier

List the names and CAS nos. of the surfactants present in the deinking chemical:

_____	_____
_____	_____
_____	_____
_____	_____

Are all the surfactants in the deinking chemical readily biodegradable according to test methods as stated in Appendix 1? Yes ☐ No ☐

If not, which surfactant(s) is/are not readily biodegradable?

_____	-	_____
_____	-	_____

Are these surfactants inherently biodegradable according to test methods as stated in Appendix 1 Yes ☐ No ☐

Test results shall be provided by the supplier in the form of e.g. a safety data sheet that must comply with the standards set out in Annex II of REACH (Regulation 1907/2006/EC).

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 4 Biocidal products and slimicides (O4)

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

Product name
Function
Manufacturer/supplier

List the names and CAS nos. for the biocides present in the product:

_____	_____
_____	_____
_____	_____
_____	_____

Is the biocide approved or under evaluation according to regulation (EU) No 528/2012? Yes ☐ No ☐

Are the biocides bioaccumulative? Yes ☐ No ☐

If no, are the biocides potentially bioaccumulative? Yes ☐ No ☐

Biocides are deemed not to be bioaccumulative if $BCF < 500$ or $\log K_{ow} < 4$ in accordance with OECD test methods 305 A-E, 107, 117 or 123. If both values are available, the value for the highest measured BCF is to be used.

Test results shall be provided by the supplier in the form of e.g. a safety data sheet that must comply with the standards set out in Annex II of REACH (Regulation 1907/2006/EC).

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 5 Wet strength agents (O5)

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

Product name
Function
Manufacturer/supplier

Do wet strength agents contain any of the low molecular organochloride compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) or chloropropandiol (CPD)? Yes ☐ No ☐

If yes, state the unambiguous chemical name, CAS number, relevant risk phrases and concentration.

_____ ppm based on dry content
 _____ ppm based on dry content
 _____ ppm based on dry content

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 6 Foam inhibitors and defoamers (O6)

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

Product name
Function
Manufacturer/supplier

Are 95% by weight of the ingoing substances with foam reducing effect in foam inhibitors/defoamers:

• readily biodegradable? Yes ☐ No ☐

or

• inherently biodegradable? Yes ☐ No ☐

For test methods, please refer to Appendix 1.

State the ingoing substances with name, CAS number and concentration:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Test results shall be provided by the supplier in the form of e.g. a safety data sheet that must comply with the standards set out in Annex II of REACH (Regulation 1907/2006/EC).

Foam inhibitors, which are destroyed in chemicals recycling, are exempted from this requirement.

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 7 Dye products (O7)

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

Product name
Function
Manufacturer/supplier

Dye products, classification of ingoing substances (O1)

Do dyes for use in printing and colouring contain ingoing substances classified as hazardous to the aquatic environment in accordance with table 1 in requirement O1 or as STOT RE 1: H372? Yes ☐ No ☐

If yes, is the classification of the dye product due to the dye itself? Yes ☐ No ☐

If yes, specify how the conditions for the dye's optimal fixation to fibres are met during the process:

Dye Products, Metals (O7)

Are dyes or pigments in dye products based on aluminium, silver, arsenic, barium, cadmium, cobalt, chromium, copper, mercury, manganese, nickel, lead, selenium, antimony, tin or zinc? Yes ☐ No ☐

If yes, please specify the metal(s)?: _____

Copper in phthalocyanine pigment and aluminium in aluminosilicates are exempted from this requirement.

Ionic Impurities (O7)

Do the levels of ionic impurities in the dyes exceed the following limits?			
Antimony: 50 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Arsenic: 50 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Barium: 100 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Cadmium: 20 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Chromium: 100 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Cobalt: 500 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Copper: 250 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Lead: 100 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Mercury: 4 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Nickel: 200 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Selenium: 20 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Silver: 100 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Tin: 250 ppm	Yes	<input type="checkbox"/>	No <input type="checkbox"/>
Zinc: 1 500 ppm.	Yes	<input type="checkbox"/>	No <input type="checkbox"/>

Amines (O8)

Does the dye formulation contain dyes that can decompose to form any of the aromatic amines listed in Regulation (EC) No 1907/2006 Annex XVII, Appendix 8? Yes ☐ No ☐

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 8 Adhesives (O8)

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

Product name
Function
Manufacturer/supplier

Do adhesives used in the production, conversion or packaging of the product contain

- Halogenated volatile organic compounds? Yes ☐ No ☐
- Ethylene glycol ethers classified in accordance with Yes ☐ No ☐
Table 1 in requirement O1?

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 9 Starch products and GMO (O9)

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

Product name
Function
Manufacturer/supplier

We hereby declare that the above-mentioned starch product is not derived from genetically modified material.

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

Place and date	
Manufacturer/supplier	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email

Appendix 10 Declaration regarding chemicals from the pulp and paper manufacturer (O1, O3 and O6)

Pulp and paper manufacturer

Dye products, classification of ingoing substances (O1)

Is the exemption for dyes applied in requirement O1 (classification of ingoing substances as hazardous to the aquatic environment in accordance with table 1 in requirement O1 or as STOT RE 1: H372)? Yes ☐ No ☐

If yes, specify how the conditions for the dye's optimal fixation to fibres are met during the process?

Deinking chemicals (O3)

Are silicone derivatives used in deinking? Yes ☐ No ☐

If yes, specify the sewage treatment steps used in external wastewater treatment and verify that the sludge is incinerated.

Foam inhibitors and defoamers (O6)

Are the foam inhibitors/defoamers destroyed in chemicals recycling? Yes ☐ No ☐

If yes, specify how these foam inhibitors/defoamers are destroyed in chemicals recycling.

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

Place and date	
Pulp and paper manufacturer	Company name/stamp
Responsible person	Signature of responsible person
Telephone	Email