

Nordic Ecolabelling of
Paper Products - Chemical Module



Version 2.7 • 22 June 2011 - 31 December 2023



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Paper Products - Chemical Module, version 2.7, 01 June 2021

This document is a translation of an original in Swedish. 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 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 Ecolabel modular system for paper products

Nordic Ecolabelled paper products may be made of wood fibre, fibres from other plants and recycled paper. The criteria for Nordic Ecolabelling of paper products encompass a wide range of requirements, most of which relate to pulp and paper production.

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

The Chemical Module (this document) contains general requirements in regard to the uses of chemicals in the manufacture of pulp and paper.

Supplementary Modules contain those requirements in regard to specific paper products which must be fulfilled in order that a licence to carry the Nordic Ecolabel may be granted. The requirements levels of supplementary modules may vary in relation to the basic or Chemical Module. If the standards required 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 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 2 of the modular system includes the following documents:

- Basic Module (Nordic Ecolabelling of Paper Products – Basic Module)
- Chemical Module (Nordic Ecolabelling of Paper Products – Chemical Module)

Other Nordic Ecolabel criteria may refer to the modular system, such as the revised Criteria for Copying and Printing Paper (version 4), the revised Criteria for Tissue Paper (version 5) and the Criteria for Sanitary Products.

What is Nordic Ecolabelled paper?

The Nordic Ecolabel is an official eco-label with absolute requirements. Nordic Ecolabelled papers have less impact on the environment than most other papers in their product groups and the Nordic Ecolabel signifies that the product fulfils strict environmental requirements.

This means that the paper has minimum environmental impact with regard to production, use and waste. This is achieved by using certified raw materials, by limiting the use of environmentally harmful chemicals, by producing low emissions to air and water and by reducing energy consumption.

Nordic Ecolabelling environmental requirements provide individual manufacturers guidance on how they can contribute to the development of sustainable production and a sustainable society.

The Nordic Ecolabel on a paper product confirms that resources have been used efficiently and that environmentally suitable production methods have been employed. The raw materials used in the product have been evaluated by Nordic Ecolabelling and only raw materials of the highest quality in environmental terms may be used in Nordic Ecolabelled products.

Documentation

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

To document the requirements producer/supplier shall use the Nordic Ecolabelling Portal. The portal can be accessed via the internet addresses shown on page 2 of this document or via <https://www.nordic-ecolabel.org/certification/paper-pulp-printing/my-swan-account/papertissue-producers/>

In those cases in which 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 product.

All information submitted to Nordic Ecolabelling will be treated confidentially.

Analyses and classification

All tests must be conducted in accordance with OECD guidelines.

To test biodegradability, use test method "OECD Guidelines for the Testing of Chemicals"¹, No. 301 A F for ready biodegradability and No. 302 A C for ultimate biodegradability. As an alternative ISO 10708 (BODIS test) can be used to determine readily biodegradability.

To determine bioaccumulation potential, use test method "OECD Guidelines for the Testing of Chemicals" No. 107, 117 or 305 A E.

To determine acute toxicity, use test method "OECD Guidelines for the Testing of Chemicals" No. 201, 202 or 203 A E.

Classification shall be in accordance with Council Directive 67/548/EEC and Council Directive 1999/45/EEC (until 1 December 2010 and during the transition period 2010-2015) or Regulation 1272/2008/EEC (as of 1 December 2010). The assessment and classification of chemical substances is the responsibility of the chemical supplier. Nordic Ecolabelling may request access to the background to the evaluation/classification of the substance.

¹ OECD Guidelines for the Testing of Chemicals:
http://www.oecd.org/document/40/0,3343,en_2649_34377_37051368_1_1_1_1,00.html#Obtaining_Test_Guidelinesalendar.yahoo.com/ (20100920)

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 stipulated in respect of recycled fibre, mechanical pulp, CTMP and chemical pulp. These requirements do not depend on the manufacturing combination; i.e. whether the pulp is manufactured at a non-integrated or at an integrated paper mill.

The requirements do not apply to chemicals used in the treatment of freshwater, in the generation of energy or in maintenance work that is not 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 constituting maintenance of pulp and paper production equipment, whereas felt washing agents used continuously in production are regarded as production chemicals.

Chemicals used in external treatment of water lying outside the control of the pulp or paper manufacturer (e.g. municipal treatment plants), are exempt from the requirements below. In the case of pulp production, manufacturers often operate their own external water treatment plants; and these are not exempted from the requirements. It is, however, common practice on the continent for waste water from smaller paper mills to be treated in municipal treatment plants, over which the paper manufacturer exercises no control. Exemptions are allowed for this type of external water treatment plant.

It is not necessary to report or document the use of chemicals in trials, of no longer than 10 days during a period of, at most, two months, to Nordic Ecolabelling, in respect of pulp and paper manufacturing.

Fulfilment of the requirements is documented primarily with the aid of declaration or test results from chemical manufacturers/suppliers. Nevertheless, Nordic Ecolabelling will be entitled to request chemical manufacturers/suppliers for information on the complete chemical composition of a product in order to check the contents of the product when necessary.

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

Constituent substances

Ingoing substances are defined as, unless stated otherwise, all substances in the product – including additives (e.g. preservatives or stabilisers) in the raw materials, but not residuals from the production, incl. the production of raw materials. Residuals are defined as residuals, pollutants, contaminants etc. from the production, incl. production of the raw materials, which are present in the final product in amounts less than 100 ppm (0.0100 w/w %, 100 mg/kg), but not substances added to the raw materials or product intentionally and with a purpose – regardless of amount.

Production chemicals

The term “production chemicals”, as used in this document, is a collective term for chemical additives, auxiliary chemicals and process chemicals. The term is further used to refer to starch, filler material and so on.

1.1 Requirements applying to all production chemicals and chemical products

R1 Production chemicals

The pulp/paper manufacturer must report all production chemicals, providing documentation in respect of the product's complete name, function, area of use in the mill, supplier and quantities used in kg/tonnes pulp/paper. All chemical products used in the production of pulp and paper and in conversion must be fully documented. The requirement further applies to internal and external water treatment.

The documentation required are to be submitted with the aid of the web-based application aid My Swan Account.

- ☒ Declaration of the production chemicals used in My Swan Account, see also Appendix 1 in this document. Product safety data sheets for chemical products can be included on demand. Safety data sheet/product specification must comply with the standards set out in Annex II of REACH (Regulation 1907/2006/EC).

R2 Classification of production chemicals

Organic 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 | Hazard symbol and risk phrase / Hazard class, category and statement | |
|------------------------------|---|--|
| | Dangerous Substances Directive 67/548/EEC/ Dangerous Preparations Directive 1999/45/EC | CLP Regulation 1272/2008 |
| Hazardous to the environment | N with R50, R50/53 or R51/53 and/or R59 | Hazardous to the aquatic environment: Category Acute 1 H400 Category Chronic 1 H410, Category Chronic 2 H411 EUH 059 (Dangerous for the ozone layer) |
| Very toxic | T+ with R26, R27, R28 and/or R39 | Acute toxicity: Category 1 or 2 with H330, H310 and/or H300 and/or Specific target organ toxicity – single exposure: Category 1 with H370 |
| Carcinogenic | T with R45 and/or R49, (Category 1 or 2) or Xn with R40 (Cat 3) | Carc 1A/1B/2 with H350, H350i and/or H351 |
| Mutagenic | T with R46 (Category 1 or 2) or Xn with R68 (Cat 3) | Muta 1A/1B/2 with H340 and/or H341 |
| Reproductive toxic | T with R60 and/or R61 (Category 1 or 2). Or Xn with R62 and/or R63 (Cat 3) | Repr 1A/1B/2 with H360, H361 |

Classification is performed according to EU Dangerous Substance Directive 67/548/EEC / Dangerous Preparations Directive 1999/45/EC with later amendments and adjustments and/or CLP Regulation 1272/2008 with later amendments. Classification according to the EU Dangerous Substance Directive or the CLP Regulation may be used during the transition period, i.e. until 1 June 2015. Following the transition period, classification according to the CLP Regulation is to apply exclusively (see Table 1 above). Further information on the risk phrases is supplied in Appendix 2.

Note that the producer of the raw material/product is responsible for classification.

Note that this requirement applies to organic production chemicals and not constituent substances. Only chemicals that are 100% inorganic are exempted from the requirement (e.g. NaOH).

Exceptions to the requirement:

- Biocides
- Peracetic acid (bleaching agent)
- Cationic polymers, if charge is the reason for classification.
- If consumption of the chemical is less than 0.05 kg/tonne produced pulp (0.005%) at the pulp mill or per produced paper at the paper mill.
- DTPA and its salts. Please, also note requirement R15 in the Basic Module (version 2 or newer) concerning potential replacement of DTPA in the production.

Dyes classified as environmentally hazardous are exempted from the requirement if

- classification of the dye is due to the dyestuff itself and
- dyestuffs are fixed to fibres > 98%. The degree of fixation is calculated as the total retention of dyestuffs on the fibres during the process and
- where the constituent substances are not found in Restricted Substances Database (Sweden), List of undesirable substances, Environmental Review² or The Priority List³, (State of the Environment, Norway).

☒ The chemical manufacturer or supplier shall demonstrate compliance with the requirement by duly completing the declaration in web-based application aid My Swan Account. If the exception to dyes is applied, must chemical manufacturer/supplier and pulp/paper producer verify how the requirements for the exception are met by duly completing and signing Appendix 3, Declaration 7 (chemical manufacturer/supplier) and Appendix 4 (pulp/paper producer) in My Swan Account.

1.2 Requirements applying to specific chemicals

Requirements applying to specific chemicals are stipulated in respect of the following chemicals. Documentation is to be submitted with the aid of the web-based application aid My Swan Account (MSA). Forms that are equivalent to declarations in this document (in parentheses) are available in MSA:

- Cleaning agents and dispersants, (Appendix 3, Declaration 1)
- De-inking chemicals (Appendix 3, Declaration 2)
- Biocides/slimicides (Appendix 3, Declaration 3)
- Coatings*, retention agents, flocculants, foam inhibitors/defoamers and wet strength agents (Appendix 3, Declaration 4)
- Wet strength agents (Appendix 3, Declaration 5)
- Foam inhibitors/defoamers (Appendix 3, Declaration 6)

²

http://www.mst.dk/Virksomhed_og_myndighed/Kemikalier/Stoflister+og+databaser/listen_over_uoenskede_stoffer/

³ <http://www.miljostatus.no/Tema/Kjemikalier/Kjemikalielister/Prioritetslisten/>

- Dyes, environmental hazard of constituent substances (Appendix 3, Declaration 7)
- Dyes, heavy metals (Appendix 3, Declaration 7)
- Dyes, amines (Appendix 3, Declaration 7)
- Dyes, phthalates (Appendix 3, Declaration 7)
- Adhesives (Appendix 3, Declaration 8)
- Starch products, GMO (Appendix 3, Declaration 9)

* *Coatings: The term “coatings” encompasses products applied to the base paper after the press section of a paper machine.*

R3 Cleaning agents and dispersants

Alkylphenol ethoxylates or other alkylphenol derivatives must not be deliberately added to cleaning agents or dispersants.

- The producer or supplier shall demonstrate compliance with the requirement by duly completing and signing Declaration 1, Appendix 3 in My Swan Account.

R4 De-inking chemicals

If more than 100 g of surfactant per tonne de-inked pulp is used in de-inking (the total of all surfactants used in the various de-inking products in use), each surfactant must be readily degradable. If the total of all surfactants used is less than 100 g surfactant/tonne de-inked pulp, each surfactant must be either readily or ultimately biodegradable.

Silicone derivatives that are destroyed in chemicals recycling are exempted from this requirement.

Alkylphenol ethoxylates or other alkylphenol derivatives must not be deliberately added to de-inking chemicals.

- The chemical manufacturer/supplier must report the composition of the product regarding surfactants, stating complete names, CAS no. and amounts in accordance with Declaration 2 in Appendix 3 in My Swan Account. The result of testing for biodegradation properties must be reported e.g. in a product safety data sheet. If the exception to silicone derivatives is applied, must manufacturer certify how the requirements for the exception are met by duly completing and signing Declaration 2 in Appendix 3.
- The pulp- and paper manufacture must certify the total amount of surfactants in the de-inking chemicals g/tonne de-inked pulp by duly completing and signing Appendix 4 in My Swan Account. If the exception to silicone derivatives is applied, must pulp/paper producer certify how the requirements for the exception are met by duly completing and signing Appendix 4 in My Swan Account.

R5 Biocides/slimicides

Active organic substances in biocides used for countering slime-forming organisms in pulp and paper production must not bioaccumulate or be potentially bioaccumulative.

- Chemical manufacturers/suppliers must report on the composition of the product regarding biocides, stating their complete name and CAS no. in accordance with Declaration 3 in Appendix 3 in My Swan Account. Test results on the bioaccumulation potential of the active substances must be reported e.g. in product safety data sheets.

R6 Coating agents, retention agents, flocculants, foam inhibitors/defoamers and wet strength agents

Alkylphenol ethoxylates or other alkylphenol derivatives must not be deliberately added to coating agents, retention agents, flocculants, foam inhibitors/defoamers and wet strength agents.

The total content of residual monomers, classified according to Table 1 in requirement R2 (N with R50/H400 exempt) and/or as environmentally hazardous with R52/53/H412, may in newly produced polymers not exceed:

- 700 ppm for acrylamide
- 100 ppm for other residual monomers

Quantities are calculated based on the total polymer content (dry matter content) of the commercial product.

Polymers which together constitute less than 1% of the polymer blend is exempted from the requirement.

Bisphenol A may not be used in Nordic Ecolabelled paper.

- The manufacturer or supplier of the chemical product shall, with full name and CAS number, provide a statement listing the residual monomers in the product classified according to the requirement above, and certify that the requirement is fulfilled by duly completing and signing Declaration 4 in Appendix 3 or Declaration 6 (foam inhibitors/defoamers) in Appendix 3 in My Swan Account. The paper manufacture must certify that the requirement to bisphenol A is met by duly completing and signing Appendix 4 in My Swan Account.

R7 Wet strength agents

Wet strength agents may contain a total of no more than 100 ppm (0.01%) low-molecular chloro-organic compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) and chloropropanediol (CPD) – calculated on the basis of the dry matter content.

- The manufacturer or supplier of chloro-organic wet strength agents shall certify that the requirement is fulfilled by duly completing and signing Declaration 5 in Appendix 3 in My Swan Account.

R8 Foam inhibitors and defoamers

Alkylphenol ethoxylates or other alkylphenol derivatives must not be deliberately added to foam inhibitors.

None of the constituent substances that have a foam inhibiting or foam retarding effect in foam inhibitors/defoamers shall be classified as environmentally hazardous in accordance with Table 1 in R2 and/or as environmentally hazardous with R52/53/H412.

As an alternative, foam inhibitors/defoamers for which 95% by weight of the constituent substances with a foam inhibiting or foam retarding effect are either readily or ultimately biodegradable, may be used.

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

The chemical manufacturer or 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 Declaration 6 in Appendix 3 in My Swan Account.
or
- where foam inhibitors/defoamers consist of a mixture of various 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 product safety data sheets and completed Declaration 6 in Appendix 3 in My Swan Account.

- ☒ If the exception to foam inhibitors/defoamers destroyed in chemicals recycling is applied, must pulp/paper producer certify how the requirements for the exception are met by duly completing and signing Appendix 4 in My Swan Account.

R9 Dyes, environmental hazard of constituent substances

Dyes for use in printing and colouring shall contain a maximum total of 2% by weight of constituent substances classified as environmentally hazardous in accordance with Table 1 in requirement R2 and/or as environmentally hazardous with R52/53/H412.

Exception to the requirement are dyes where

- dyestuffs are fixed to fibres > 98%. The degree of fixation is calculated as the total retention of dyestuffs on the fibres during the process. and
- where the constituent substances are not found in Restricted Substances Database (Sweden), List of undesirable substances, Environmental Review⁴ or The Priority List⁵, (State of the Environment, Norway).

- ☒ The producer or supplier shall specify the content of the product by duly completing and signing Declaration 7, Appendix 3 in My Swan Account. If the exception to dyes is applied, must chemical manufacturer/supplier and pulp/paper producer certify how the requirements for the exception are met by duly completing and signing Appendix 3, Declaration 7 (chemical manufacturer/supplier) and Appendix 4 (pulp/paper producer) in My Swan Account .

R10 Dyes, heavy metals and aluminium

Heavy metals, aluminium and copper (e.g. aluminium in silver colouring, copper in gold colouring), or compounds of heavy metals, may not be present in dyestuffs or pigments in dyes (this applies to both dyeing of pulp and printing inks).

Copper in phthalocyanine pigment is exempted from this requirement.

Limit values for impurities of heavy metals:

- Impurities of Pb, Hg, Cr and Cd in dyes (applies to the dyeing of pulp and printing inks) must not exceed a total content of 100 ppm.
- The following limit values apply to individual substances in direct dyes: Pb 100 ppm, Hg 4 ppm, Cd 20 ppm and Cr 100 ppm.
- The following limit values apply to individual substances in pigment dyes: Pb 100 ppm, Hg 25 ppm, Cd 50 ppm and Cr 100 ppm.

- ☒ The producer or supplier shall demonstrate compliance with the requirement by duly completing and signing Declaration 7, Appendix 3 in My Swan Account.

R11 Dyes, amines

Direct and pigment dye shall not contain dye substances that may liberate the amines specified in Table 2.

Table 2 Amines that must not be liberated from dyestuffs.

⁴

http://www.mst.dk/Virksomhed_og_myndighed/Kemikalier/Stoflister+og+databaser/listen_over_uoenskede_stoffer

⁵ <http://www.miljostatus.no/Tema/Kjemikalier/Kjemikalielister/Prioritetslisten/>

| Amine | CAS-number |
|--|-------------------|
| 4-amino-biphenyl | 92-67-1 |
| Benzidine | 92-87-5 |
| 4-chloro-toluidine | 95-69-2 |
| 2-naphtylamine | 91-59-8 |
| o-aminoazo-toluene | 97-56-3 |
| 2-amino-4-nitro-toluene | 99-55-8 |
| p-chloroaniline | 106-47-8 |
| 2,4-diamino-anisol | 615-05-4 |
| 2,4'-diamino-diphenylmethane | 101-77-9 |
| 3,3'-dichlorobenzidine | 91-94-1 |
| 3,3'-dimethoxybenzidine | 119-90-4 |
| 3,3'-dimethylbenzidine | 119-93-7 |
| 3,3'-dimethyl-4,4'-diamino-diphenylmethane | 838-88-0 |
| p-Cresidine | 120-71-8 |
| 4,4'-methylenebis(2-chloroaniline) | 101-14-4 |
| 4,4'-oxydianiline | 101-80-4 |
| 4,4'-thiodianiline | 139-65-1 |
| o-Toluidine | 95-53-4 |
| 2,4-toluilenediamine | 95-80-7 |
| 2,4,5-trimethylaniline | 137-17-7 |
| 0-anisidinedimethoxyaniline | 90-04-0 |
| 2,4-xylydine | 95-68-1 |
| 4,6-xylydine | 87-62-7 |
| 4-aminoazobenzene | 60-09-3 |

- The producer or supplier shall demonstrate compliance with the requirement by duly completing and signing Declaration 7, Appendix 3 in My Swan Account.

R12 Dyes, phthalates

Phthalates shall not be present in the dyes used.

- The producer or supplier shall demonstrate compliance with the requirement by duly completing and signing Declaration 7, Appendix 3 in My Swan Account.

R13 Adhesives

Adhesives used in the production, conversion or packaging of the product shall not contain alkylphenol ethoxylates or other alkylphenol derivatives, phthalates, halogenated volatile organic compounds or ethylene glycol ethers.

Adhesives carrying the Nordic Ecolabel are approved, provided that the trade name and licence number are specified.

- The chemical manufacturer or supplier shall give an account of the composition and classification of the product by duly completing and signing Declaration 8 in Appendix 3 in My Swan Account or provide documentation demonstrating that the adhesive is Nordic Ecolabelled.

R14 Starch products, GMO

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

- The producer or supplier of the starch product shall demonstrate compliance with the requirement by duly completing and signing Declaration 9, Appendix 3 in My Swan Account.

2 Quality and regulatory requirements

Information on the chemicals used in the production of pulp and paper products shall be provided to Nordic Ecolabelling in the following declarations and forms. The documents are available in the web-based application aid My Swan Account (MSA).

The pulp and paper manufacture shall duly complete Appendix 1.

The chemical manufacturer or supplier shall duly complete Declaration 1-8 in Appendix 3.

The producer or supplier of starch products shall duly complete Declaration 9 in Appendix 3.

The pulp- and paper manufacturer shall duly complete Appendix 4.

Validity of the Chemical Module

This Chemical Module, version 2, has been approved by the Nordic Ecolabelling Board on 22 June 2011. The module is reviewed regularly about every 5 years.

Following changes were approved by Nordic Ecolabelling May 10 2012:

- Requirement 4 (de-inking chemicals). The pulp- and paper manufacturer must certify the total amount of surfactants in the de-inking chemicals g/tonne de-inked pulp by duly completing and signing Appendix 4.
- Requirement 6 (polymers): The requirement now applies for coatings, retention agents, flocculants, foam inhibitors/defoamers and wet strength agents. New trivalency limit so polymers witch together constitute less than 1% of the polymer blend is exempted from the requirement. New in requirement 6 is also that the paper manufacture must certify that the requirement to bisphenol A is met by duly completing and signing Appendix 4.

On 15 May 2013 the Secretariat Manager's meeting decided to prolong the criteria document until 30 June 2016. The new version is called 2.2.

On 19 June 2013 the Secretariat Manager's meeting decided to adopt a change in requirement R2 (Classification of production chemicals). Until 30 June 2016, can DTPA and its salts be used in production. Some small amendments were also included in the criteria document. The new version is called 2.2.

On 19 February 2014 the Secretariat Manager's meeting decided to adopt a change in requirement R4 (De-inking chemicals). Silicone derivatives that are destroyed in chemicals recycling are exempted from the requirement. In requirement R2, dyes classified as environmentally hazardous are exempted from the requirement providing that certain conditions for dyes are met (eg. fixing to

fibres > 98%). In K8 and K9, requirements for documentation were adjusted. If exceptions are applied, the producer must certify how the requirements for exceptions are met. Some small amendments were also included in the criteria document. The new version is called 2.3.

On 5 November 2015 the Nordic Ecolabelling Board decided to prolong the criteria document three years until 30 June 2019. The new version is called 2.4. The derogation concerning DTPA and its salts in the requirement R2 was amended permanent in the generation 2 of the Chemical Module. Some editorial changes were also introduced in the document.

Nordic Ecolabelling decided on 14 December 2017 to prolong the criteria for chemical module with 18 months to the 31 December 2020. The new version is called 2.5.

Nordic Ecolabelling decided on 12 November 2019 to prolong the criteria for chemical module with 12 months to the 31 December 2021. The new version is called 2.6.

Nordic Ecolabelling decided on 1 June 2021 to prolong the criteria for chemical module with 24 months to the 31 December 2023. The new version is called 2.7.

Nordic Ecolabelling notifies all customers if any changes, amendments or revisions of the Chemical Module, version 2.

Appendix 2 Modification of requirements in accordance with the CLP Regulation

Classification is performed according to EU Dangerous Substance Directive 67/548/EEC/Dangerous Preparations Directive 1999/45/EC with later amendments and adjustments and/or CLP Regulation 1272/2008 with later amendments. Classification according to the EU Dangerous Substance Directive or the CLP Regulation may be used during the transition period, i.e. until 1 June 2015. Following the transition period, classification according to the CLP Regulation is to apply exclusively.

| Classification | Hazard symbol and risk phrase / Hazard class, category and statement | |
|------------------------------|---|--|
| | Dangerous Substances Directive 67/548/EEC /Dangerous Preparations Directive 1999/45/EC | CLP Regulation 1272/2008 |
| Hazardous to the environment | R50: Very toxic to aquatic organisms R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R59: Dangerous for the ozone layer | H400: Very toxic to aquatic organisms H410: Very toxic to aquatic life with long lasting effects H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects EUH059: Dangerous for the ozone layer |
| Very toxic/toxic | R26: Very toxic by inhalation R27: Very toxic in contact with skin R28: Very toxic if swallowed R39: Danger of very serious irreversible effects R48: Danger of serious damage to health by prolonged exposure | H330: Fatal if inhaled H310: Fatal in contact with skin H300: Fatal if swallowed H370: Causes damage to organs (or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard) H372: Causes damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard) |
| Carcinogenic | R40: Possible risk of cancer R45: May cause cancer R49: May cause cancer by inhalation | H350: May cause cancer H351: Suspected of causing cancer |
| Mutagenic | R46: May cause heritable genetic damage R68: Possible risks of irreversible effects | H340: May cause genetic defects H341: Suspected of causing genetic defects |
| Reproductive toxic | R60: May impair fertility R61: May cause harm to the unborn child R62: Possible risk of impaired fertility R63: Possible risk of harm to the unborn child | H360: May damage fertility or the unborn child H361: Suspected of damaging fertility or the unborn child |

Appendix 3 Declaration 1, Cleaning agents and dispersants

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

Have alkylphenol ethoxylates or other alkylphenol derivatives been actively added to the cleaning agent or dispersant? Yes No

Alkylphenol derivatives are defined as agents that liberate alkylphenol during degradation.

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 2, De-inking chemicals

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

List names, CAS no. and the amounts of surfactants present in the de-inking chemicals:

_____ - _____ g/kg chemical product
 _____ - _____ g/kg chemical product
 _____ - _____ g/kg chemical product
 _____ - _____ g/kg chemical product

Are all the surfactants present in de-inking chemicals readily biodegradable according to the OECD test 301 A-F? Yes No

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

_____ - _____ g/kg chemical product
 _____ - _____ g/kg chemical product

Are these surfactants ultimately biodegradable according to the OECD test 302 A-C? 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).

Are silicone derivatives used in de-inking? Yes No

If yes, specify the fate of the silicone derivatives after de-inking (e.g. in wastewater treatment process)? _____

Have alkylphenol ethoxylates or other alkylphenol derivatives been actively added to the product? Yes No

Alkylphenol derivatives are defined as agents that liberate alkylphenol during degradation.

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 3, Biocides/slimicides

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

List the names and CAS no. of the biocides present in the product:

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

Are the biocides potentially bioaccumulative? Yes No

Not bioaccumulative, if BCF<100 or log Ko/w <3, OECD test 107, 117 or 305 A E.

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).

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 4, Coating agents, retention agents, flocculants and wet strength agents

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

Does the product contain polymers? Yes No

Have alkylphenol ethoxylates or other alkylphenol derivatives been actively added to a coating, retention agent or other polymer product? Yes No

Alkylphenol derivatives are defined as agents that liberate alkylphenol during degradation.

Has Bisphenol A been actively added to the coating agents? Yes No

Does the product contain residual monomer(s) classified as:

| Classification | Associated danger symbols and R-phrases | |
|------------------------------|---|--|
| Hazardous to the environment | N with R50/53, R51/53 and/or R59. R52/53 / Category Acute 1 H400 Category Chronic 1 H410, Category Chronic 2 H411 EUH 059 (Dangerous for the ozone layer). Category Chronic 3 H412. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Very toxic | T+ with R26, R27, R28 and/or R39/ Category 1 or 2 with H330, H310 and/or H300 and/or Specific target organ toxicity – single exposure: Category 1 with H370. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Carcinogenic | T with R45 and/or R49 (Category 1 and 2) or Xn with R40 (Category 3)/ Carc 1A/1B/2 with H350, H350i and/or H351. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Mutagenic | T with R46 (Category 1 or 2) or Xn with R68 (Category 3)/ Muta 1A/1B/2 with H340 and/or H341. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Reproductive toxic | T with R60 and/or R61 (Category 1 or 2) or Xn with R62 and/or R63 (Category 3)/ Repr 1A/1B/2 with H360, H361. | Yes <input type="checkbox"/> No <input type="checkbox"/> |

If yes, state the unambiguous chemical name, the CAS number and the concentration:

_____ ppm based on dry content

_____ ppm based on dry content

Quantities are calculated based on the total polymer content (dry matter content) of the commercial product.

Polymers which together constitute less than 1% of the polymer blend is exempted from the requirement.

Please note that the upper limit for the total concentration of harmful monomers in the product is 100 ppm, excluding acrylamide which has an upper limit of 700 ppm.

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 5, Wet strength agents

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

Do wet strength agents contain any of the low molecular chloro-organic compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) and chloropropanediol (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

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 6, Foam inhibitors and defoamers

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

Foam inhibitors and defoamers

Are any of the constituent substances that have a foam inhibiting or foam retarding effect in foam inhibitors/defoamers classified as environmentally hazardous in accordance with Table 1 in R2 and/or as environmentally hazardous with R52/53 /H412? Yes No

or

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

readily biodegradable (OECD 301 A-F test)? Yes No

or

ultimately biodegradable (OECD 302 A-C test)? Yes No

State the constituent components 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 the chemical recycling, are exempted from this requirement.

Have alkylphenol ethoxylates or other alkylphenol derivatives been actively added to the foam inhibitor? Yes No

Alkylphenol derivatives are defined as agents that liberate alkylphenol during degradation.

Does the product contain polymers? Yes No

Does the product contain residual monomer(s) classified as:

| Classification | Associated danger symbols and R-phrases | |
|------------------------------|---|--|
| Hazardous to the environment | N with R50/53, R51/53 and/or R59. R52/53 / Category Acute 1 H400 Category Chronic 1 H410, Category Chronic 2 H411 EUH 059 (Dangerous for the ozone layer). Category Chronic 3 H412. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Very toxic | T+ with R26, R27, R28 and/or R39/ Category 1 or 2 with H330, H310 and/or H300 and/or Specific target organ toxicity – single exposure: Category 1 with H370. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Carcinogenic | T with R45 and/or R49 (Category 1 and 2) or Xn with R40 (Category 3))/ Carc 1A/1B/2 with H350, H350i and/or H351. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Mutagenic | T with R46 (Category 1 or 2) or Xn with R68 (Category 3))/ Muta 1A/1B/2 with H340 and/or H341. | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Reproductive toxic | T with R60 and/or R61 (Category 1 or 2) or Xn with R62 and/or R63 (Category 3)/ Repr 1A/1B/2 with H360, H361. | Yes <input type="checkbox"/> No <input type="checkbox"/> |

If yes, state the unambiguous chemical name, the CAS number and the concentration:

_____ ppm based on dry content

_____ ppm based on dry content

Quantities are calculated based on the total polymer content (dry matter content) of the commercial product.

Polymers which together constitute less than 1% of the polymer blend is exempted from the requirement.

Please note that the upper limit for the total concentration of harmful monomers in the product is 100 ppm, excluding acrylamide which has an upper limit of 700 ppm.

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 7, Dyes

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

Classification

Do dyes for use in printing and colouring contain substances classified as environmentally hazardous in accordance with Table 1 in Requirement 2 and/or as environmentally hazardous with R52/53/H412?

Yes No

If yes, state the unambiguous chemical name, the CAS number and the concentration:

_____ %
_____ %
_____ %

Is the exception for dyes applied?

Yes No

If yes, specify how the requirements for exception are met (e.g. fixing to fibres >98%)?

Are heavy metals, aluminium and copper, or compounds of heavy metals, present in dyestuffs or pigments?

Yes No

If yes, please specify the metal: _____

Impurities

We hereby declare that total lead, cadmium, mercury and chromium impurities do not exceed 100 ppm in the dye or pigment.

Yes No

We hereby declare that the lead content does not exceed 100 ppm, mercury 4 ppm, cadmium 20 ppm and chromium 100 ppm in direct dyes.

Yes No

We hereby declare that the lead content does not exceed 100 ppm, mercury 25 ppm, cadmium 50 ppm, chromium 100 ppm in the pigment dyes.

Yes No

Phthalates

Have phthalates been used in the dye formulations contained in the product?

Yes No

Amines

Does the dye formulation contain dyes that can decompose to form any of the amines listed in R11 (Table 2)?

Yes No

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 8, Adhesives

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

Do adhesives used in the production, conversion or packaging of the product contain alkylphenol ethoxylates or other alkylphenol derivatives, phthalates, halogenated volatile organic compounds or ethylene glycol ethers?

Yes No

Is the adhesive Nordic Ecolabelled?

Yes No

If yes, specify the trade name and licence number

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 3 Declaration 9, GMO in Starch products

| |
|------------------------|
| Product name: |
| Function: |
| Manufacturer/supplier: |

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

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of supplier/manufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.

Appendix 4 Declaration regarding chemicals from the pulp- and paper manufacturer (R2, R4, R6, R8 and R9)

Pulp- and paper manufacturer:

R4 (De-inking chemicals)

The total amount of surfactants in the de-inking chemicals _____ g/tonne de-inked pulp

Are silicone derivatives used in de-inking? Yes No

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

R6 (Bisphenol A)

Has Bisphenol A been actively added to the Nordic Ecolabelled paper? Yes No

R8 (Foam inhibitors and defoamers)

Are foam inhibitors/defoamers destroyed in chemical recycling? Yes No

If yes, specify how these foam inhibitors/defoamers are destroyed in chemical recycling?

R2 and R9 (Dyes, environmental hazard of constituent substances)

Is the exception for dyes applied in requirement R2 and/or R9? Yes No

If yes, specify how the conditions for dyestuffs optimal fixing to fibres are met during the process?

We hereby certify that all changes that are made in the product composition until next revision of the Chemical Module will immediately be notified to Nordic Ecolabelling.

Signature of pulp-/papermanufacturer

| | |
|----------------------------|----------------|
| Company | Date |
| Signature | Title/position |
| Clarification of signature | Tel/E-mail |

Nordic Ecolabelling will notify the supplier of the chemical product about any changes in the Chemical Module.