

Nordic Ecolabelling of
**Writing instruments, paint, glue and tape for
office and hobby**



Version 4 • 11 June 2013 - 26 August 2013
Consultation proposal



Nordic Ecolabelling

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Writing instruments, paint, glue and tape for office and hobby, version 4, 10 June 2013

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

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.

Addresses

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

Denmark

Ecolabelling Denmark
Danish Standards
Foundation
Kollegievej 6
DK-2920
CHARLOTTENLUND
Tel: +45 72 300 450
Fax: +45 72 300 451
info@ecolabel.dk
www.ecolabel.dk

Norway

Ecolabelling Norway
Tordenskiolds gate 6 B
NO-0160 OSLO
Tel: +47 24 14 46 00
Fax: +47 24 14 46 01
info@svanemarket.no
www.svanemarket.no

Finland

Ecolabelling Finland
Box 489
FI-00101 HELSINKI
Tel +358 424 2811
Fax +358 424 281 299
joutsen@motiva.fi
www.ecolabel.fi

Sweden

Ecolabelling Sweden
SE-118 80 STOCKHOLM
Tel: +46 8 55 55 24 00
Fax: +46 8 55 55 24 01
svanen@ecolabel.se
www.ecolabel.se

Iceland

Ecolabelling Iceland
Umhverfisstofnun
Suðurlandsbraut 24
IS-108 REYKJAVIK
Tel: +354 591 20 00
Fax: +354 591 20 20
svanurinn@ust.is
www.svanurinn.is

What is a Nordic Ecolabelled writing instruments, paint, glue and tape for office and hobby?

For many of the products there is a high exposure risk, especially for products used by children. The criteria therefore set stringent chemical requirements of the chemical element of the product, such as requirements of the classification of product and raw materials, and the limitation of VOC, halogenated organic solvents and aroma compounds.

Nordic Ecolabelled writing instruments, paint, glue and tape for office and hobby make requirements of the use of resources by requiring a certain proportion of recycled or renewable raw materials, and by limiting the use of metal. The criteria require a high proportion of certified sustainable timber and bamboo.

The criteria make requirements of good quality, and for writing instruments the requirement of refills for types for which these are used.

Why choose the Nordic Ecolabel?

- Manufactures may use the Nordic Ecolabel trademark, the Swan, for marketing the products. The Nordic Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Ecolabel is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- Environmental issues are complex. It can take a long time and extensive resources to gain an understanding of a specific area. Nordic Ecolabelling can be seen as aid in this work.
- The Nordic Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Ecolabel?

The product group comprises writing instruments, paint, glue and tape for office and hobby. Refill systems for these products are also included. Application components and dispensers that are not part of the product packaging may be included in the licence if they do not weigh more than the product itself. These four products areas are detailed below:

Writing instruments: Pencils, coloured pencils, refillable pencils, ballpoint pens, reservoir pens, overhead pens, whiteboard pens, highlighters, felt-tip pens, charcoal, ink and crayons.

Hobby paint: Acrylic paint such as school paint and artist's colours, fresco, tempera, gouache, finger paint, watercolours, glass paint, textile paint, printing ink, airbrush paint

and porcelain paint. Brushes may be included as an application component if they are sold together with the paint.

Office/hobby glue: such as universal glue, paper/school glue, glue sticks, glitter glue and other office and hobby glues that fulfil the criteria.

Tape: Office tape, packing tape, decorative tape, correction tape, double adhesive tape and photo tape with or without colour and/or print.

The criteria set more stringent requirements of products marketed for children. In order to control which products are marketed for children this is defined as follows: Products marketed for children are products where on either the product itself, the product packaging or other product information it is signalled, either as text or design, that the product is for children.

It will not be possible to control whether children actually use specific Nordic Ecolabelled products for children, but this gives parents and childcare institutions the opportunity, if they so require, to select Nordic Ecolabelled products that make special consideration of children.

Products that is not included:

- The product group does not include hobby sets that include hobby paint, for example, together with other products such as plaster figures, or colouring pens together with a painting book.
- Electronic application components are not included.
- Body and face paint are not included here, but may be Nordic Ecolabelled according to the criteria for cosmetics.
- Dyes for the dyeing of textiles are not included.
- Interior paint for floors and walls is not included, but may be Nordic Ecolabelled according to the Ecolabelling criteria for interior paint.
- Building and industrial glue are not included. Building glue may be Nordic Ecolabelled according to the criteria for chemical construction products.
- Professional tape products for e.g. construction are not included.
- Sport tape, plaster and electrical tape are not included.

Nordic Ecolabelling reserves the right to determine whether a product can be Ecolabelled according to the Nordic Ecolabelling criteria, and the criteria for any product application. For further information please contact the Nordic Ecolabelling organisation (see addresses at the beginning of the document).

How to apply

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

Icons in the text

The text describes how the applicant shall demonstrate fulfilment of each requirement. There are also icons in the text to make this clearer. These icons are:

-  Enclose
-  The requirement checked on site
-  Enclose procedure in environmental and quality management system

Application

Applications are made to the national ecolabelling organisation and the application is valid for 12 months. Applications may be processed by another ecolabelling organisation according to agreement between the organisations. The applicant is notified of this. Companies located outside the Nordic countries make applications to the national ecolabelling organisation of the primary market.

The application must consist of a completed application form together with all of the documentation required to demonstrate compliance with the requirements specified in the criteria document (this is specified for each requirement). 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.

Further information and assistance may be available. Visit the relevant national website for information.

Sales in the Nordic region

Once granted, a licence is valid throughout the Nordic region. The licence document specifies in which Nordic countries the products are sold according to the information provided on the application. The products are published on Nordic Ecolabelling's website(s). The licensee undertakes to inform Nordic Ecolabelling of any changes as to where the product is sold. If the product is to be sold in other Nordic countries than those initially specified in the application, the licensee must provide written notification of this and submit any extra documentation required to Nordic Ecolabelling in the country that issued the license.

On-site inspection

In connection with handling of the application, Nordic Ecolabelling 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.

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 Ecolabelled products.

Enquiries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 2 for addresses.

What are the requirements of the Nordic Ecolabelling?

To be awarded a Nordic Ecolabel licence, all requirements must be fulfilled.

In order to be granted a Nordic license, the following documentation must be attached to the application:

- A copy of labels in all relevant languages.
- Documentation demonstrating compliance with any industry agreements on return systems for packaging.

1 Product description

01 Information concerning the product

The applicant must provide the following information on the product(s):

1. Brand/trading name
2. Where the products will be sold (retail stores, web shops, professional, childcare institutions, schools or similar)
3. Description of the constituent product(s). If primary packaging, reels, application components or other components included with the product are used, these must be included in the description and be subject to the requirements in the document. Product data sheets or equivalent for each material must be submitted.
4. Description of the manufacturing process for the product. Sub suppliers must be described with the name of the company, production site, contact, and the production processes performed (such as ink production).
5. State a list of materials and chemical products used in the production of the writing instrument, hobby paint, glue or tape, and any primary packaging, reels, application components or other components included with the product. A safety data sheet for each chemical product must be submitted.

Materials are constituent materials such as wood, paper, carton, pulp, plastic, rubber, metal, etc. Chemical products are the chemical compound such as ink, glue, crayon or paint. Primary packaging is e.g. carton or plastic encasing individual products such as one writing instrument, one paint tube, and so on. The reel is the plastic or cardboard roll on which the tape is rolled.

Chemical products are e.g. ink, paint, crayon and glue. Auxiliary chemicals used during the manufacturing processes and that are not included in the finished product are not required to be stated.

- Submission of information stipulated in the requirement. A product data sheet may be submitted as part of the documentation. Information concerning materials, cf. Table 2 in appendix 1, must be submitted. It is possible to use Excel spread sheets equivalent to Table 2 in appendix 1 as lists of materials.
- Table 1 in appendix 1 is completed for the product(s) and submitted.

2 Environmental requirements

2.1 Resources

02 Renewable and recirculated raw materials

State the percentage composition of the materials in the product.

Plastic materials in writing instruments for professional users:

At least 30% w/w of the plastic materials included in the finished product with more than 5% w/w must be made from renewable or recirculated raw materials.

For polypropylene (PP), polyethylene (PE) and polyethylene terephthalate (PET) the 30% w/w must be post-consumer recirculated plastic, while for other plastic types both pre- and post-consumer recirculated plastic are accepted, cf. the definition in ISO 1402.

Oils and wax included with more than 20% w/w in the chemical compound:

At least 50% w/w must consist of renewable raw materials.

Renewable raw materials are here defined as biological material that is reproduced in nature. This includes the biodegradable element of products, waste and residues from agriculture and aquaculture (both vegetable and animal), forestry and similar industries, and the biologically degradable fraction of industrial waste and municipal waste.

Recirculated raw materials are here defined as pre-consumer and post-consumer, cf. the definition of this in ISO 1402.

On using primary packaging, the weight of the packaging is distributed proportionally on the individual products.

- An overview of the constituent materials with information on material types that show that the requirement is fulfilled. Appendix 1 may be used for this.

03 Metal product components and packaging

Metal may not be used in packaging, holsters, reels or application components of the Nordic Ecolabelled product.

Springs, ink cartridges and tips for writing instruments, the tear-off part of a tape dispenser and small metal parts that constitute less than 5% w/w of the product are exempt from this requirement.

- Declaration from the producer that there is no metal in the product component or packaging.

04 Refill option

The applicant must offer refill cartridges or refill leads for Nordic Ecolabelled ballpoint pens and refillable pencils.

The user must be able to replace refills without special tools being required. The refill cartridge must contain at least as much ink as the equivalent original cartridge.

Single use tape dispensers are not permitted, as there must be a refill option.

- Declaration from the applicant that the requirement is fulfilled, and photo showing the refill system.

05 Individual packaging

Individual packaging may not be used for writing instruments, hobby paint and glue.

The actual container for the ink, paint or glue, and the application component for e.g. tape, is not considered to be packaging, but part of the product.

- A description of any product packaging, including a statement of how many products are packed in the same packaging.

2.2 Chemicals

The requirements concern the chemical sub-products, here called the "chemical compound" included in the Nordic Ecolabelled product. The chemical compound may be ink, paint, graphite, watercolour pencils, crayons, chalk, glue and other adhesives.

Several of the requirements are regulation the constituent **substances** in the chemical compound. A **substance** is a chemical element and compounds thereof, natural or industrially produced, containing the additives necessary to maintain the stability of the substance, and the impurities resulting from the production process, apart from solvents, that may be removed without this affecting the substance's stability or changing its composition. A **compound** is a compound or solution that is composed of two or several substances.

Unless otherwise stated, constituent substances are taken to be any substances in the ink, paint, graphite, watercolour pencils, crayons, chalk, glue and other adhesives, including additives (e.g. preservatives or stabilisers) in the raw materials, but not impurities from raw materials production.

Impurities are taken to include residues from raw materials production that are included in ink, paint, graphite, crayons, chalk, glue and other adhesives in concentrations of less than 100 ppm (0.0100% w/w, 100 mg/l kg), but not substances added to a raw material or product deliberately and for a purpose, regardless of the quantity. Impurities at raw material level

in concentrations of over 1.0 % in the raw material are, however, considered to be constituent substances. Known cleaved off products from constituent substances are also considered to be constituents.

PCB residues in pigment are subject to a more stringent impurity limit, see requirement O10.

Products marketed for children are products where on either the product itself, the product packaging or other product information it is signalled, either as text or design, that the product is for children.

O6 Classification of the chemical product:

The final chemical compound used in the product must be classified in accordance with the current legislation (CLP Regulation 1272/2008 or the EU's Dangerous Preparations Directive 1999/45/EEC 2008, or later) and may not be classified in accordance with Table 6 below.

Archive-resistant ink is exempt from the prohibition of R22.

There are extra requirements, cf. Table 6, for products marketed for children, and for office/hobby paint and crayons.

Table 6. List of non-permitted classification of the final chemical compound used in the product, in accordance with the CLP Regulation 1272/2008, or later.

Signal words	Hazard code	Hazard designation	Risk code
Warning, Aquatic acute 1 Warning, Aquatic chronic 1 Warning, Aquatic chronic 2 -, Aquatic chronic 3 -, Aquatic chronic 4 -, Ozone	H400 H410 H411 H412 H413 EUH059	Environmentally hazardous, N N N - - N	R50 R50/53 R51/53 R52/53 R53 R59
Hazardous, Carc. 1A or 1B Hazardous, Carc. 1A or 1B Warning, Carc. 2	H350 H350i H351	Carcinogenic, T T Xn	R45 and/or R49 R40
Hazardous, Muta. 1A or 1B Warning, Muta. 2	H340 H341	Mutagenic T Xn	R46 R68
Hazardous, Repr. 1A or 1B Hazardous, Repr. 1A or 1B Warning, Repr. 2 Warning, Repr. 2 - -	H360 H360 H361 H361 H362 H362	Reprotoxic T T Xn Xn - -	R60 R61 R62 and/or R63 R33 R64
Hazardous, Acute Tox. 1 or 2 Hazardous, Acute Tox. 1 Hazardous, Acute Tox. 2 Hazardous, STOT SE 1	H330 H310 H300 H370	Very toxic, Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway)	R26 R27 R28 and/or R39
Hazardous, Acute Tox. 2 or 3	H330 or H331 H331	Toxic T T	R23 R24

Hazardous, Acute Tox. 3 Hazardous, Acute Tox. 3 Hazardous, STOT SE 1 Hazardous, STOT RE 1	H301 H370 H372	T T T	R25 R39 and/or R48
Warning, STOT RE 2 Hazardous, Asp. Toax. 1 Warning, STOT SE 2	H373 H304 H371	Hazardous to health Xn Xn Xn	R48 R65 and/or R68
Hazardous, Skin Corr. 1B Hazardous, Skin Corr. 1A	H314 H314	Corrosive C C	R34 R35
Hazardous, Eye Dam.1	H318	Local irritating, Xi	R41
Flam. Gas 1, Flam. Gas. 2, Flam. Liq. 1	H220 H221 H224	Extremely flammable F+ , gas F+ , gas F+ , liquid	R12 R12 R12
The following prohibition only concerns products for children and office/hobby paint and crayons			
Warning, Acute tox 4 Warning, Acute tox 4 Warning, Acute tox 4	H332 H312 H302	Hazardous to health Xn Xn Xn	R20 R21 R22
Hazardous, Resp. Sens. 1 Warning, Skin sens. 1	H334 H317	Sensitising, Xn Xi	R42 R43

The classification applies in accordance with the EU's Dangerous Substances Directive 67/548/EC with subsequent amendments and adjustments and/or CLP Regulation 1272/2008 with subsequent amendments. During the transition period, i.e. up to 1 June 2015, classification in accordance with the EU's Dangerous Substances Directive or the CLP Regulation may be used. After the transition period, only classification in accordance with the CLP Regulation applies.

** Only applies to products for children and office/hobby paint and crayons.*

- Declaration from the producer of the final chemical compound used in the Nordic Ecolabelled product that the requirement is fulfilled. Appendix 2 must be used.
- A safety data sheet that is not older than three years for the final chemical compound used in the Nordic Ecolabelled product in accordance with Appendix II of Reach (Regulation 1907/2006/EC with subsequent amendments and additions).

07 Classification of constituent substances

The requirement concerns all constituent substances in the final chemical compound included in the product.

The constituent substances used in the chemical compound (e.g. ink, paint, graphite, watercolour pencil, crayon, chalk, glue and other adhesives) must be classified in accordance with the current legislation (CLP Regulation 1272/2008 or the EU's Dangerous Preparations Directive 1999/45/EEC 2008, or later) and may not be classified in accordance with Table 7 below.

The requirements also concern known decomposition substances.

Archive-resistant ink is exempt from the prohibition of R22.

There are extra requirements, cf. Table 7, for products marketed for children, and for office/hobby paint and crayons.

Exempt from this requirement are isothiazolinones that are used for the preservation of the chemical compound and that are not allocated one of the risk codes R33, R42, R49, R68 or combinations thereof (further requirements of isothiazolinones are stated in O14).

Note that the residual monomers in polymers have an additional classification requirements in requirement R13.

Table 7: List of non-permitted classification of the constituent substances in the final chemical compound used in the product.

Signal words	Hazard code	Hazard designation	Risk code
Hazardous, Carc. 1A or 1B	H350	Carcinogenic, T	R45 and/or
Hazardous, Carc. 1A or 1B Warning, Carc. 2	H350i H351	T Xn	R49 R40
Hazardous, Muta. 1A or 1B Warning, Muta. 2	H340 H341	Mutagenic T Xn	R46 R68
Hazardous, Repr. 1A or 1B Hazardous, Repr. 1A or 1B Warning, Repr. 2 Warning, Repr. 2 - -	H360 H360 H361 H361 H362 H362	Reprotoxic T T Xn Xn - -	R60 R61 R62 and/or R63 R33 R64
Hazardous, Acute Tox. 1 or 2 Hazardous, Acute Tox. 1 Hazardous, Acute Tox. 2 Hazardous, STOT SE 1	H330 H310 H300 H370	Very toxic, Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway)	R26 R27 R28 and/or R39
Hazardous, Acute Tox. 2 or 3 Hazardous, Acute Tox. 3 Hazardous, Acute Tox. 3 Hazardous, STOT SE 1 Hazardous, STOT RE 1	H330 or H331 H331 H301 H370 H372	Toxic T T T T	R23 R24 R25 R39 and/or R48
Warning, STOT RE 2 Hazardous, Asp. Toax. 1 Warning, STOT SE 2	H373 H304 H371	Hazardous to health Xn Xn Xn	R48 R65 and/or R68
The following prohibition only concerns products for children and office/hobby paint and crayons			
Hazardous, Resp. Sens. 1 Warning, Skin sens. 1	H334 H317	Sensitising, Xn Xi	R42 R43
Warning, Acute tox 4 Warning, Acute tox 4	H332 H312	Hazardous to health Xn Xn	R20 R21

Warning, Acute tox 4	H302	Xn	R22
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The classification applies in accordance with the EU's Dangerous Substances Directive 67/548/EC with subsequent amendments and adjustments and/or CLP Regulation 1272/2008 with subsequent amendments. During the transition period, i.e. up to 1 June 2015, classification in accordance with the EU's Dangerous Substances Directive or the CLP Regulation may be used. After the transition period, only classification in accordance with the CLP Regulation applies.

- Safety data sheet not older than three years in accordance with Appendix II in Reach (Regulation 1907/2006/EC, with subsequent amendments and supplements) for all constituent raw materials in the final chemical compound used in the product.
- Complete recipe with all raw materials in the final chemical compound used in the Nordic Ecolabelled product. For all raw materials the recipe must state the following: function, chemical name, trading name, INCI (International Nomenclature of Cosmetic Ingredients) designation, any CAS number, constituent volume, including and excluding water.
- Declaration from the raw materials producer/supplier that the requirement is fulfilled. Appendix 3 must be used.

08 Heavy metals

The requirement concerns all constituent substances in the final chemical compound used in the product.

Heavy metals or heavy metal compounds: cadmium, lead, chromium VI, mercury, arsenic, barium (with the exception of barium sulphate) selenium, cobalt and antimony may not be included in the constituent chemical substances.

- Declaration from the producer of the final chemical compound used in the product that the requirement is fulfilled. Appendix 3 must be used.

09 Volatile organic compounds (VOC)

Volatile organic compounds may not be included in the chemical compound.

Volatile organic compounds are here defined as:

Organic compounds with a steam pressure exceeding 0.01 kPa, at 20°C (does not apply to hobby paint),

but if the steam pressure is not stated, and for hobby paint, the following definition is used instead:

organic substances with an initial boiling point that is lower than or equal to 250°C measured at a normal pressure of 101.3 kPa.

If both steam pressure and value of initial boiling point are stated as described above, the steam pressure is always used. This does not apply to hobby paint.

Volatile aromatic hydrocarbons (VAH) may not be added actively to the product. An exemption is made for this if volatile aromatic hydrocarbons are included as denaturants in alcohol or in organic pigment/colourants.

Exemption

For writing instruments: overhead, whiteboard, felt-tip and marking pens an exemption is made for the following volatile organic compounds in ink:

- Ethanol (CAS 64-17-5)
- Isopropyl alcohol (CAS 67-63-0)
- 1-propanol (CAS 71-23-8) may be included with up to 10% w/w of the final chemical compound.

For hobby paint, up to 5 g/litre (0.5%, 5,000 ppm) volatile organic compounds that are not VAH (volatile aromatic hydrocarbons) are permitted in the final chemical compound of the paint ("ready to use").

- Declaration from the producer or supplier of raw materials on the VOC content of the raw material. Appendix 3 may be used.
- Summary from producer of chemical compound showing the calculation of VOC content in the final chemical compound, cf. the requirement.

010 Halogenated organic solvents

Chemical compounds may not contain halogenated organic solvents, with the following exception:

Pigments in which the content of PCB (polychlorinated biphenyls) is contamination or residue and the content of PCB is <25ppm in the pigment.

The PCB concentration must be tested in accordance with "Determination of low levels of chlorinated biphenyl impurities in pigments"¹, or other relevant test method, e.g. "US EPA test method 608".

- Declaration from the pigment producer showing compliance with the requirement and the test report in accordance with the requirement. Appendix 3 may be used.

011 Endocrine disrupting substances

The requirement only concerns products for children and hobby paint and crayons.

None of the constituent substances in the chemical compound may be on the EU's priority list of substances that must be examined further for endocrine disrupting effects in category 1 or 2*. The list can be found here:

http://ec.europa.eu/environment/endocrine/documents/final_report_2007.pdf

(Appendix L, p. 238-)

** Category 1: At least one study indicates evidence of an endocrine disrupting effect in an intact organism. Category 2: Potential for endocrine disrupting effect. In vitro data indicates potential for an endocrine disrupting effect in an intact organism. Also includes in-vivo effects that may have arisen due to endocrine disruption. May include structural analysis and metabolic considerations.*

- Declaration from the raw materials producer/supplier that the requirement is fulfilled. Appendix 3 must be used.

012 Carbon Black

The requirement only concerns products for children, and paint and crayons.

On using Carbon Black in the chemical compound, the content of the following PAH's may not exceed 0.2 mg/kg final chemical compound.

- Benzo[A]Pyrene, CAS No: 50-32-8
- Benzo[E]Pyrene, CAS No: 192-97-2
- Benzo[A]Anthracene, CAS No: 56-55-3
- Dibenzo[A,H]Anthracene, CAS No: 53-70-3
- Benzo[B]Fluoranthene, CAS No: 205-99-2
- Benzo[J]Fluoranthene, CAS No: 205-82-3
- Benzo[K]Fluoranthene, CAS No: 207-08-9
- Chrysene, CAS No: 218-01-9

¹ Chemosphere, 1984, 13(4), 499-506

- Documentation from the Carbon Black supplier showing the content of the stated PAH's, and calculation from the applicant showing that the requirement is fulfilled.

013 Residual monomers in polymers

The requirement concerns products in which the polymer is 1% w/w or more of the final chemical compound.

The total content of residual monomers in the polymer may not exceed 100 ppm for the residual monomers classified in one or several classes, as described in Table 13 below. Statement of the quantity of residual monomers must be for a newly produced polymer.

Table 13: Classification of residual monomers

According to the CLP Regulation (EC:1272/2008):	According to the Dangerous Preparations Directive 1999/45/EC:
CMR (category 1a, 1b, 2)	CMR (class 1-3)
Acute toxicity, (category 1-4)	Very toxic (T+)
Aspiration toxicity (category 1)	Toxic (T)
Specific organ toxicity on occasional exposure (category 1-2)	Hazardous to health (Xn)
Specific organ toxicity on repeated exposure (category 1-2) or Skin or Airway sensitisation (category 1, 1A, 1B).	Allergenic (R 42), (R 43)

The classification applies in accordance with the EU's Dangerous Substances Directive 67/548/EC with subsequent amendments and adjustments and/ or CLP Regulation 1272/2008 with subsequent amendments. During the transition period, i.e. up to 1 June 2015, classification in accordance with the EU's Dangerous Substances Directive or the CLP Regulation may be used. After the transition period, only classification in accordance with the CLP Regulation applies.

- Declaration from the producer of the chemical compound that the requirement is fulfilled. Appendix 4 must be used.
- Specifications and/or analysis results from the polymer producer, to support fulfilment of the requirement.

014 Preservative

Preservatives added to the chemical compound or raw materials may not be bioaccumulable.

The biological accumulability of a substance can be tested on fish in accordance with the OECD's test guidelines 305 AE. If the biological concentration factor (BCF) of the substance is ≥ 500 , the substance is deemed bioaccumulable, and if $BCF < 500$ the substance is deemed non-bioaccumulable. Unless otherwise established, substances are deemed bioaccumulable if $\log K_{ow} \geq 4$ according to the OECD's test guidelines 107 or 117 or equivalent methods.

If there is a measured BCF value, the highest measured value must be used instead of $\log K_{ow}$. This means that a substance with a $\log K_{ow}$ value ≥ 4 is not considered to be bioaccumulable if the highest measured BCF value is < 500 .

The total content of isothiazolinones in the chemical compound may not exceed 100 ppm (0.01% w/w, 100 mg/kg).

The total content of the compound of 5-chloro-2-methyl-2H-isotiazol-3-on (CAS-no 26172-55-4) and 2-methyl-2H-isotiazol-3-on (CAS-no 2682-20-4) (3:1) in the chemical compound may not exceed 15 ppm (0.0015% w/w, 15 mg/kg).

- Declaration from the raw materials producer/supplier showing that the requirement is fulfilled. Appendix 3 must be used.

O15 Perfume, aroma and other aromatic compounds

Perfume, aroma or other aromatic compounds (e.g. essential oils, plant oils and plant extracts) may not be included in the chemical compound.

- Declaration from the raw materials producer or supplier showing that the requirement is fulfilled. Appendix 3 must be used.

O16 Nano particles

The product may not contain nano particles (from nano material*)

The definition of nano material follows the European Commission's definition of nano materials from 18 October 2011, with the exception that the limit for the particle size distribution is reduced to 1%:

"Nano materials" are defined as a natural, incidental or manufactured material containing particles in an unbound state or as an aggregate or an agglomerate and where at least 50% of the particles in the size distribution by number, in one or more external dimensions, are in the size range of 1-100 nm.

Polymer emulsions are not considered to be a nano material.

Exemptions from the requirement are given for the following:

- Pigments/colourants
- Natural minerals
- Metals (the exemption does not apply to gold, silver, copper and the metals excluded by other requirements in the criteria).

- Declaration from raw materials suppliers (besides pigment, natural minerals and metals) that the raw material does not contain nano material in accordance with the requirement's definition. Appendix 3 must be used.

2.3 Timber, paper, cardboard and paper pulp

The following requirements concern paper, cardboard, paper pulp, plywood and solid wood used in the product, if it is included with more than 10% w/w in the final product. The requirements also apply if the raw materials/materials are included with more than 10% w/w in the primary packaging, reel, application components or other elements included with the Nordic Ecolabelled product.

O17 Paper, cardboard and paper pulp

On using paper, cardboard or pulp in the product or packaging at least 60% w/w must be recycled fibre.

The requirement does not concern paper labels adhered to the product.

- Declaration from the paper, cardboard or pulp producer showing that the requirement is fulfilled. The declaration must include the name of the paper, cardboard or pulp, and the producer. Appendix 6 may be used.

O18 Solid wood, plywood and bamboo - origin and chain of custody

Raw materials that are extracted for use for product components of solid wood, plywood and bamboo as the raw material for writing instruments, brushes and packaging, must comply with the following requirements.

Secondary raw materials from trees such as palm leaves are exempt from the requirement.

1. State name (Latin and a Nordic language) and geographical origin (country/state and region/province/municipality) and suppliers of the timber and bamboo raw material used.

2. There must be a chain of custody for all raw materials.
3. The licence holder must have a written routine for sustainable timber supplies.
4. Ensure that all timber and bamboo are from legal sources. Timber may not come from:
 - protected areas or areas that are subject to consideration to become protected areas
 - areas with unclear ownership or rights of use
 - illegally felled trees
 - genetically modified wood

In addition, forestry may not destroy or damage:

- Natural forest, biodiversity, special ecosystems and important environmental functions.
- Social and cultural heritage assets.

Nordic Ecolabelling may require further documentation if the raw materials origin is subject to uncertainty.

- Name (Latin and a Nordic language) and geographical origin (country/state and region/province/municipality) of the timber and bamboo raw material used. Appendix 7a must be used
- A chain of custody system must be described. Chain of Custody Certificate may be used as documentation for item 2.
- Written routines to ensure sustainable timber and bamboo supplies. The requirement of a Chain of Custody Certificate from sub suppliers may be used as part of a routine. The routine must ensure updated lists of all suppliers.

019 Certified solid wood, plywood and bamboo

The requirement concerns timber products that are extracted for use for product components of solid wood, plywood and bamboo as the raw material for writing instruments, brushes and packaging.

70% w/w of all wood for components of solid wood and plywood and 70% of all bamboo must come from certified forestry. Alternatively, bamboo may be cultivated organically, or the cultivation may be being switched to organic production.

The requirement can be documented as purchased wood and bamboo on an annual basis. The certification must be performed by an independent third party.

The certification must be in accordance with a current forestry standard that fulfils the requirements of the standard and certification system stated in Appendix 7c.

- The proportion (%) of certified wood or bamboo included in the applicant's Nordic Ecolabelled production on an annual basis. Appendix 7b may be used.
- A copy of the forestry certificate signed and approved by a certification body.
- Nordic Ecolabelling may require further documentation in order to assess whether the requirements of the standard, certification system and certified share are fulfilled. For example a copy of the certification body's approval report, a copy of the forestry standard including name, address and telephone number of the organisation that drew up the standard, and references to persons representing parties and stakeholder groups that are invited to participate in the development of the forest standard.

2.4 Metal

The metal requirements concern metal in both products and containers.

020 Heavy metals

Metal elements may not contain chromium VI, nickel, mercury, lead or cadmium.

Surface treatment with chromium, nickel, lead, cadmium or zinc may not occur.

There is an exemption from the requirement for metal elements that are not in contact with the skin and that weigh less than 5 g, and for the tips of ballpoint pens.

By tip is only meant the metal part that holds the ball in a ballpoint pen.

The requirement does not apply to impurities from raw materials production or processing. Impurities are considered to be residues from raw materials production/processing included in metals in concentrations of < 100 ppm. Substances that are deliberately added to a raw material or included for a purpose are not considered to be impurities, irrespective of the concentration.

- Declaration from the producer of the chemical compound that the requirement is fulfilled. Appendix 8 may be used.

2.5 Plastic and rubber

O21 and O22 applies to all plastic elements included with more than 1% w/w in the final product and O21 and O23 applies to all rubber irrespective of % w/w in the product.

The requirements concern the product including packaging such as holsters and containers.

021 Additives in plastic and rubber

The following substances may not be actively added to the master batch or compound for plastic/plastic elements and rubber:

- pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- phthalates
- halogenated organic compounds in general (including chlorinated polymers, PVC, chlorinated paraffins, fluorinated compounds and flame retardants)
- carcinogenic, mutagenic and reprotoxic compounds (categories 1 and 2)

Constituent substances are taken to be any substances in the product, including additives in the ingredients (e.g. pigments), but not impurities from raw material production. Impurities are taken to include residues from raw materials production that are included in the end product in concentrations of less than 100 ppm (0.01% w/w, 100 mg/kg), but not substances added to a raw material or product deliberately and for a purpose, regardless of the quantity.

The requirement concerns constituents added to master batches or compounds. The requirement does not concern the actual polymer production.

- Documentation from the master batch and compound producer or supplier in accordance with Appendix 9.

022 PVC and PVDC

PVC and PVDC² may not be included in the product or packaging.

- Declaration from the producer that PVC and PVDC are not included.

² Polyvinyl dichloride

O23 Natural latex and synthetic latex (SBR)

The content of 1,3-butadien must be less than 1 mg/kg latex.

The content of the following PAHs may not be less than 0.2 mg/kg latex

- Benzo[A]Pyrene, CAS No: 50-32-8
- Benzo[E]Pyrene, CAS No: 192-97-2
- Benzo[A]Anthracene, CAS No: 56-55-3
- Dibenzo[A,H]Anthracene, CAS No: 53-70-3
- Benzo[B]Fluoranthene, CAS No: 205-99-2
- Benzo[J]Fluoranthene, CAS No: 205-82-3
- Benzo[K]Fluoranthene, CAS No: 207-08-9
- Chrysene, CAS No: 218-01-9

- Test protocol from test of content of 1,3-butadien and the PAHs stated in the requirement in latex, showing that the requirement is fulfilled. Appendix 9 must be used.

2.6 Surface treatment**O24 Surface treatment or foliation**

Surface treatment or foliation of pencils, wooden coloured pencils and similar is not permitted for the last 3 cm at the end of the pencil or coloured pencil. There is an exemption, however, for the requirement of the necessary text/logo and Nordic Ecolabel.

- Declaration from the producer of the chemical compound that the requirement is fulfilled.

2.7 Use and quality requirements**O25 Packaging/containers**

For colouring pens, paint and glue, the packaging/container must be re-sealable, so that the product does not dry out.

- Photos or product sheets showing that the packaging can be re-sealed, so that the product does not dry out.

O26 Child safety

Products marketed as being products for children must fulfil the official child safety requirements, as well as the CE-marking requirements in accordance with relevant sections of the toy safety standard.

- Declaration from the producer of the chemical compound that the requirement is fulfilled.

Quality requirements

Quality requirements O27 to O34 are divided into the following sub-groups by product type and function:

- Hobby/office paint

- Hobby/office glue
- Hobby/office tape
- Writing instruments
 - with viscous colour or ink (not white board)
 - whiteboard pens
 - pencils
 - coloured pencils and crayons

027 Quality requirements of hobby/office paint

The producer of paint for hobby/office use must have a quality procedure to test the viscosity of each batch of the paint to ensure that the required viscosity is achieved within a defined interval. There is an exemption for specific types of paints, where the viscosity intentional is close to that of water, such as fluid watercolour paints.

The viscosity must be storage stable. Storage stability is documented with a test of storage time of 2 months/56 days in accordance with ISO 3219-93.

The producer of the paint for hobby/office use must have a quality procedure for each batch in order to test that the paint is homogeneously blended (e.g. not grainy).

The paint's gloss range is determined, and the product label must state whether the paint is high gloss, gloss, semi-gloss, eggshell or matt. The gloss range is measured in accordance with ISO 2813-94 Gloss: Lacquers/varnishes and paints. Determination of film of non-metallic paints at 20°, 60° and 85°.

Table 27: Gloss ranges

Gloss type	Gloss range		
	20° Gloss	60° Gloss	85° Gloss >
Gloss	45-90	70 - 95+	-
Gloss	5-45	25-70	-
Semi-gloss	-	15-25	10-40
Eggshell	-	2-15	5-25
Matt	-	1-10	1-10

- Description of quality procedure to test the viscosity of paint, to ensure that the required viscosity is achieved for each batch. Statement of the viscosity required.
- Documentation as a storage test of 2 months/56 days, cf. ISO 3219-93, to ensure that the paint does not separate during storage.
- Documentation of the stated gloss type in accordance with ISO 2813-94 and label showing that the gloss type is stated.

028 Quality requirements of hobby and office glue

Based on quality tests it must be documented that the glue is of good quality, for use in the operation and the materials from which the product is marketed for on the product and product sheet, or for which the product is marketed elsewhere.

The product quality is here defined by the following 3 parameters:

- Glue efficiency expressed as an attachment in conjunction with the quantity used
- Glue consistency (is it too thin, too thick or lump it)
- The glue is easy to applicate

The Ecolabelled product must be tested against a reference product. The reference product must be an equivalent product in the Nordic market. The test must be carried out as laboratory test laboratory complies with requirements listed in the "Test institute" section in Chapter 4. The efficiency test must be performed with at least 20 replicates and in 80% of these replicates the ecolabeled product should be at least as good or better than the reference product. Selection of the test must be justified in relation to how it tests for the properties the glue is marketed with.

- Test report documenting compliance with the requirement

O29 Quality requirements of hobby and office tape

It must be ensured that the tape is of good quality in accordance with the function for which it is marketed. The following requirements must be fulfilled in terms of the function for which the tape is marketed.

Office tape

Adhesion to steel measured according to EN 1939: of at least 1.5 N/cm

Tensile strength measured according to EN 14410: at least 3 daN/cm

Elongation at break measured by EN 14410: of at least 20%

Decorative tape/Correction tape

Adhesion to steel measured according to EN 1939: of at least 1.5 N/cm

Tensile strength measured according to EN 14410: at least 2 daN/cm

Elongation at break measured by EN 14410: of at least 20%

Packing tape

Adhesion to steel measured according to EN 1939: of at least 4 N/cm

Tensile strength measured according to EN 14410: at least 300 N/100 mm width

Elongation at break measured by EN 14410: of at least 100 %

Moveable tape

Tensile strength measured according to EN 14410: at least 2 daN/cm

Elongation at break measured by EN 14410: of at least 20 %

- Test report for tests stated in the requirement showing that the requirement is fulfilled in accordance with the function for which the tape is marketed.

O30 Ballpoint and rollerball pens with ink or gel

The pen's writing length must comply with the requirement level for writing length stated for the type of pen in question in the relevant table below. The writing length must be tested according to the test standard stated in the table. The requirement levels are stated for pens with a refill option, as this is a requirement for Nordic Ecolabelled pens, cf. requirement O4.

It must be described how the pen, including holster, is of high quality, so that the minimum lifetime is equivalent to the used of the pen for a lifetime of two ink cartridges, cf. the tables in this requirement.

Table 30.1 Ballpoint pens ISO 12 757

Ballpoint pens are tested in accordance with ISO 12 757 Part 1 (article 5) :		
Broad tip	(diameter > 1.05 mm)	with refill 400 m
Medium tip	(1.05 mm > diameter > 0.85 mm)	with refill 600 m
Fine tip	(0.85 mm > diameter > 0.65 mm)	with refill 900 m
Extra fine tip	(0.65 mm > diameter)	with refill 1200 m

Table 30.2: Roller ball pens ISO 14 145

Roller ball pens are tested in accordance with ISO 14 145 Part 1 (article 5) :		
Broad tip	(diameter > 1.2 mm)	with refill 200 m
Medium tip	(1.2 mm > diameter > 0.75 mm)	with refill 400 m
Fine tip	(0.75 mm > diameter > 0.55 mm)	with refill 600 m
Extra fine tip	(0.55 mm > diameter)	with refill 800 m

Table 30.3: Roller ball pens with gel ink ISO 27668:2009 Gel ink ball pens and refills

Roller ball pens with gel ink, tested in accordance with ISO 27668:2009 Gel ink ball pens and refills:		
Broad tip	(> 1.2 mm)	with refill 100 m
Medium tip	(1.2 mm > diameter > 0.75 mm)	with refill 200 m
Fine tip	(0.75 mm > diameter > 0.55 mm)	with refill 400 m
Extra fine tip	(0.55 mm > diameter > 0.40 mm)	with refill 600 m

- Test report in accordance with the requirement, showing that the requirement is fulfilled.
- Description of the life time of the pen (incl. holster) according to the requirement

031 Marker pens/felt-tip pens (not white board)

The pen must be tested for resistance to drying out. It must be documented that the pen can lie without its cap without drying out during the period of time stated below in Table 31.

Table 31: Marker pens/felt-tip pens.

Marker and felt-tip pens and their ink must have the capacity not to dry out during the following periods of time:	
Permanent marker pens	5 h
Non-permanent marker pens	5 h
Colour felt-tip pens with washable ink	48 h
Colour felt-tip pens with extra washable ink	48 h

The test is performed in the following conditions:

The writing instrument without cap/lid is placed horizontally with the tip downwards in a climate chamber with a controlled temperature and humidity in accordance with ISO 554 Standard atmospheres for conditioning and/or testing. Temperature and humidity are maintained at 23°C and 50% RH, respectively, during the test.

After the time stated in Table 31 it is tested whether the pen can still write.

- Documentation as a test report that the pen does not dry out, in accordance with the requirement.

032 Felt pens - only Whiteboard

It must be possible to remove writing on a whiteboard using a whiteboard sponge.

The pen must be tested for resistance to drying out. It must be documented that the pen can lie uncapped for at least 5 hours without drying out.

The test is performed in the following conditions:

The writing instrument without cap/lid is placed horizontally with the tip downwards in a climate chamber with a controlled temperature and humidity in accordance with ISO 554 Standard atmospheres for conditioning and/or testing. Temperature and humidity are maintained at 23°C and 50% RH, respectively, during the test.

After 5 hours is tested whether the pen can still write.

- Documentation as a test report that the pen does not dry out, in accordance with the requirement.

033 Pencils and pencil leads

Hardness defined by the European scale (H-B) cf. Table 33, for pencils and pencil leads must be tested in accordance with ISO 15184 or BS 3900-E19. The tested hardness must be shown on the pencil or pencil lead packaging. Equivalent standards may be used, as approved by Nordic Ecolabelling.

Table 33: Hardness scale for pencils and pencil leads.

9H	8H	7H	6H	5H	4H	3H	2H	H	F	HB	B	2B	3B	4B	5B	6B	7B	8B	9B	
Hardest	→					Medium				→					Softest					

- Test report showing hardness tested in accordance with one of the standards stated in the requirement, and photo showing that hardness is shown on the pencil or pencil lead.

034 Pastel paints, crayons and coloured pencils

Chalk, crayons and coloured pencils must be tested for satisfactory quality in relation to the characteristics for which the product is marketed, either directly or indirectly via product type. The test may be the applicant's internal quality test, a consumer test with at least 10 independent test persons, or a test to compare with an equivalent product, such as a triangle test.

- Description of the test, including the method selected and test result. If a consumer test is used, a copy of the completed and signed test reports must be submitted. A report describing which test persons and how many were asked must also be attached, as well as a summary of the results.

2.8 Label, consumer information and recycling systems

035 Information to the customer

The licence holder must recommend that refills are used for the product types where this is offered in accordance with requirement O4. This information must be shown on any label, packaging or product sheet.

- Label, packaging and product sheet

036 Recycling system

Relevant national regulations, laws and/or industry agreements concerning recycling systems for products and packaging must be fulfilled in the Nordic countries where the Nordic Ecolabelled products are marketed.

- Documentation from the applicant on connection to existing recovery/treatment agreement.

3 Quality and regulatory requirements

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

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

037 Legislation and regulations

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

No documentation is required, but Nordic Ecolabelling may revoke the licence if the requirement is not fulfilled.

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

038 Nordic Ecolabel licence person

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

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

039 Documentation

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

- Checked on site.

040 Quality of the Product

The licensee must guarantee that the quality of the production of the Nordic Ecolabelled product is maintained throughout the validity period of the licence.

- Procedures for collating and, where necessary, dealing with claims and complaints regarding the quality of the Nordic Ecolabelled product.

041 Planned changes

Written notice must be given to Nordic Ecolabelling of planned changes in products and markets that have a bearing on Nordic Ecolabel requirements.

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

042 Unplanned nonconformities

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

- Procedures detailing how unplanned nonconformities are handled.

O43 Traceability

The licensee must have a traceability system for the production of the Nordic Ecolabelled product.

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

O44 Marketing

Marketing of the Nordic Ecolabelled writing instrument, paint, glue and tape for office and hobby must comply with "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

- Appendix 10 duly completed.

Marketing

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

The label must be positioned so that there is no doubt as to what the label refers and so that it is clear that the writing instrument, paint, glue or tape for office and hobby is ecolabelled.

More information on marketing can be found in "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

Design of the Nordic Ecolabel

Design of the Nordic Ecolabel:



Each licence has a unique six-figured licence number that must be displayed along with the label.

More information on the design of the label can be found in "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

Follow-up inspections

Nordic Ecolabelling may decide to check whether the writing instrument, paint, glue and tape for office and hobby fulfil Nordic Ecolabel 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 product 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.

Test institute

The used test institution shall be competent and impartial in accordance with the following:

Laboratory must meet the general requirements of standard EN ISO 17025 or have official GLP status. The applicant is responsible for documentation and analysis costs. Manufacturers' analysis laboratory can be authorized to perform quality testing if the following are met:

- The manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9000.
- By comparing test samples should be anonymised for test lab

How long is a licence valid?

Nordic Ecolabelling adopted the criteria for XX on DAY MONTH YEAR. The criteria are valid until DAY MONTH YEAR (this is a consultation proposal).

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.

New criteria

For the next revision it will be relevant to investigate whether for specific products there may be relevance, potential and steerability for a resource or weight limitation in relation to the functional unit. This is particularly relevant for writing instruments - especially ballpoint pens.

It will also be relevant to assess for which requirements there are high RPS (relevance, potential and steerability) to set for recirculated materials and whether the requirement of the proportion of renewable or recirculated materials can be tightened.

Appendix 1 Overview of materials from the producer

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Producer:	Contact:
Product:	The product's total weight in kg:

Table 1 presents a general view of the applicable requirements. The quantities and composition of various materials may determine the requirements that apply. Applicants must complete Tables 1 and 2. The requirements concern both product and any product packaging.

Table 1 Overview of materials and the chapters in which the requirements are found.

Material	Level	Requirement	Appendix	Volumes (kg and w/w %)	Relevant
Resources	General	K2 – K3			For all
	Refill	K4			Yes <input type="checkbox"/> No <input type="checkbox"/>
	Individual packaging	K5			For all
Chemicals (the chemical compound)	General	K6-K12	2+4		Yes <input type="checkbox"/> No <input type="checkbox"/>
	More than 1% w/w of polymer in the chemical compound	K13	5		Yes <input type="checkbox"/> No <input type="checkbox"/>
	Preservative	K14	2		Yes <input type="checkbox"/> No <input type="checkbox"/>
	Perfume/aroma compounds	K15	2		Yes <input type="checkbox"/> No <input type="checkbox"/>
	Nano particles	K16	2		Yes <input type="checkbox"/> No <input type="checkbox"/>
Paper, cardboard and paper pulp	If more than 10% in the product	K17	6		Yes <input type="checkbox"/> No <input type="checkbox"/>
Solid wood, plywood and bamboo	If more than 10% in the product	K18 – K19	7a-7c		Yes <input type="checkbox"/> No <input type="checkbox"/>
Metal	Parts more than 5 g	K20	8		Yes <input type="checkbox"/> No <input type="checkbox"/>
Plastic	Virgin plastic - more than 1% w/w	K21 - K22	9		Yes <input type="checkbox"/> No <input type="checkbox"/>
Rubber	More than 1% w/w	K23	9		Yes <input type="checkbox"/> No <input type="checkbox"/>
Pencils and coloured pencils	Surface treatment	K24			Yes <input type="checkbox"/> No <input type="checkbox"/>
Use and quality requirements	General	K25 – K26			For all
	Depending on product type	K27 – K34			For all
Label, consumer information and return systems	General	K35 – K36			For all
Quality and environmental management requirements	General	K37-K45			For all

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Table 2 below shall present an overview of:

- All suppliers for materials/raw materials included in the product, as well as product packaging.
- The material's function in the product (e.g. chemical compound, surface treatment, packaging).
- The type of material/product (e.g. pigment, binder, plastic, metal, carton, etc.).
- State what percentage of each material is a renewable or recirculated raw material.
- The product's total weight is stated, as well as volumes of the individual materials in the product, and the % w/w of the product's total weight.
- Alternative to Table 2. Nordic Ecolabelling also accepts complete spreadsheets or similar from the producer, if the information described here is included. Table 1 above must always be completed.

Table 2. Overview of materials and suppliers, the material's function in the floor, material volumes, proportion renewable, proportion recirculated and any composition of materials.

Supplier	Function in product	Material type and composition	Percentage renewable/recirculated	Weight in kg	% w/w
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

Appendix 2 Declaration of requirements of the chemical compound

The chemical product's name and area of use:
Producer/importer of the chemical product:

Classification of chemical compound (e.g. ink, paint, graphite, coloured pencils, crayons, chalk, glue and other adhesives)

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

Note that the prohibition of classification with H332, H312, H302, H334 and H317 only concerns products for children and office/hobby paint and crayons.

Archive-resistant ink is exempt from the prohibition of R22.

Table 6: List of non-permitted classification of the finished chemical compound used in the product, in accordance with the CLP Regulation 1272/2008, or later.

Signal words	Hazard code	Hazard designation	Risk code
Warning, Aquatic acute 1 Warning, Aquatic chronic 1 Warning, Aquatic chronic 2 -, Aquatic chronic 3 -, Aquatic chronic 4 -, Ozone	H400 H410 H411 H412 H413 EUH059	Environmentally hazardous, N N N - - N	R50 R50/53 R51/53 R52/53 R53 R59
Hazardous, Carc. 1A or 1B Hazardous, Carc. 1A or 1B Warning, Carc. 2	H350 H350i H351	Carcinogenic, T T Xn	R45 and/or R49 R40
Hazardous, Muta. 1A or 1B Warning, Muta. 2	H340 H341	Mutagenic T Xn	R46 R68
Hazardous, Repr. 1A or 1B Hazardous, Repr. 1A or 1B Warning, Repr. 2 Warning, Repr. 2 - -	H360 H360 H361 H361 H362 H362	Harmful to reproduction T T Xn Xn - -	R60 R61 R62 and/or R63 R33 R64
Hazardous, Acute Tox. 1 or 2 Hazardous, Acute Tox. 1	H330 H310 H300	Very toxic, Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway)	R26 R27 R28

Hazardous, Acute Tox. 2 Hazardous, STOT SE 1	H370	Tx (T+ in Norway)	and/or R39
Hazardous, Acute Tox. 2 or 3 Hazardous, Acute Tox. 3 Hazardous, Acute Tox. 3 Hazardous, STOT SE 1 Hazardous, STOT RE 1	H330 or H331 H331 H301 H370 H372	Toxic T T T T	R23 R24 R25 R39 and/or R48
Warning, STOT RE 2 Hazardous, Asp. Toax. 1 Warning, STOT SE 2	H373 H304 H371	Hazardous to health Xn Xn Xn	R48 R65 and/or R68
Hazardous, Skin Corr. 1B Hazardous, Skin Corr. 1A	H314 H314	Corrosive C C	R34 R35
Hazardous, Eye Dam.1	H318	Local irritating, Xi	R41
Flam. Gas 1, Flam. Gas. 2, Flam. Liq. 1	H220 H221 H224	Extremely flammable F+ , gas F+ , gas F+ , liquid	R12 R12 R12
The following prohibition only concerns products for children and office/hobby paint and crayons			
Warning, Acute tox 4 Warning, Acute tox 4 Warning, Acute tox 4	H332 H312 H302	Hazardous to health Xn Xn Xn	R20 R21 R22
Hazardous, Resp. Sens. 1 Warning, Skin sens. 1	H334 H317	Sensitising, Xn Xi	R42 R43

The classification applies in accordance with the EU's Dangerous Substances Directive 67/548/EC with subsequent amendments and adjustments and/or CLP Regulation 1272/2008 with subsequent amendments. During the transition period, i.e. up to 1 June 2015, classification in accordance with the EU's Dangerous Substances Directive or the CLP Regulation may be used. After the transition period, only classification in accordance with the CLP Regulation applies (see the above Table).

We confirm that the aforementioned declarations have been made to the best of our knowledge and according to the knowledge held at this time, based on tests and/or declarations from raw materials producers/suppliers. Reservation is made for any developments and new knowledge. If such new knowledge arises, the signatory is obliged to submit an updated declaration to Nordic Ecolabelling.

Signature of the producer:

Date	Company name
Case officer	Telephone

Appendix 3 Declaration for constituent substances in raw materials

The chemical raw material's name and area of use:
Producer/supplier of the raw material:

The requirements concern all constituent substances in the raw material.

If the information concerning the composition of the raw materials is confidential, the information can be sent directly to the environmental labelling organisation.

Constituent substances are taken to be any substances in the product, including additives (e.g. pigments) in the ingredients, but not impurities from raw materials production. Impurities are taken to include residues from raw materials production that are included in the end product in concentrations of less than 100 ppm (0.01% w/w, 100 mg/kg), but not substances added to a raw material or product deliberately and for a purpose, regardless of the quantity.

The requirements also concern known decomposition substances.

Classification of constituent substance

Are the constituent substances classified in accordance with the table below?

Yes No

Archive-resistant ink is exempt from the prohibition of R22.

Note that the prohibition of classification with H332, H312, H302, H334 and H317 only concerns constituent substances in products for children and office/hobby paint and crayons.

Exempt from this requirement are isothiazolinones that are used for the preservation of the chemical compound and that are not allocated one of the risk codes R33, R42, R49, R68 or combinations thereof (further requirements of isothiazolinones are stated in K13).

Table 7: List of non-permitted classification of the constituent substances in the finished chemical compound used in the product.

Signal words	Hazard code	Hazard designation	Risk code
Hazardous, Carc. 1A or 1B	H350	Carcinogenic, T	R45 and/or R49
Hazardous, Carc. 1A or 1B Warning, Carc. 2	H350i H351	T Xn	R40
Hazardous, Muta. 1A or 1B Warning, Muta. 2	H340 H341	Mutagenic T Xn	R46 R68
Hazardous, Repr. 1A or 1B Hazardous, Repr. 1A or 1B Warning, Repr. 2	H360 H360 H361	Harmful to reproduction T T	R60 R61 R62

Warning, Repr. 2 - -	H361 H362 H362	Xn Xn - -	and/or R63 R33 R64
Hazardous, Acute Tox. 1 or 2 Hazardous, Acute Tox. 1 Hazardous, Acute Tox. 2 Hazardous, STOT SE 1	H330 H310 H300 H370	Very toxic, Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway) Tx (T+ in Norway)	R26 R27 R28 and/or R39
Hazardous, Acute Tox. 2 or 3 Hazardous, Acute Tox. 3 Hazardous, Acute Tox. 3 Hazardous, STOT SE 1 Hazardous, STOT RE 1	H330 or H331 H331 H301 H370 H372	Toxic T T T T T	R23 R24 R25 R39 and/or R48
Warning, STOT RE 2 Hazardous, Asp. Toax. 1 Warning, STOT SE 2	H373 H304 H371	Hazardous to health Xn Xn Xn	R48 R65 and/or R68
The following prohibition only concerns products for children and office/hobby paint and crayons			
Hazardous, Resp. Sens. 1 Warning, Skin sens. 1	H334 H317	Sensitising, Xn Xi	R42 R43
Warning, Acute tox 4 Warning, Acute tox 4 Warning, Acute tox 4	H332 H312 H302	Hazardous to health Xn Xn Xn	R20 R21 R22

The classification applies in accordance with the EU's Dangerous Substances Directive 67/548/EC with subsequent amendments and adjustments and/or CLP Regulation 1272/2008 with subsequent amendments. During the transition period, i.e. up to 1 June 2015, classification in accordance with the EU's Dangerous Substances Directive or the CLP Regulation may be used. After the transition period, only classification in accordance with the CLP Regulation applies (see the above Table).

Note that the producer is responsible for the correct classification.

- Safety data sheet/product sheet in accordance with current legislation in the country of application, e.g. Appendix II in REACH (Regulation 1907/2006/EC) for the raw material.

Content and additives in the raw material

Does the raw material contain cadmium, lead, chromium VI, mercury, arsenic, barium (with the exception of barium sulphate), selenium, cobalt and antimony? Yes No

Does the raw material contain volatile organic compounds³? Yes No

³ Volatile organic compounds are here defined as:

If yes, which and in how high a % w/w in the raw material? _____

Does the raw material contain volatile aromatic compounds (VAH)⁴? Yes No

Does the raw material contain added halogenated organic solvents? Yes No

Does the raw material contain substances from the EU's priority list of substances that must be examined further for hormone-disturbing effects in category 1 or 2? Yes No

Preservative

Does the raw material contain preservatives? Yes No

If yes, state the name of the preservative and the substance's biological concentration factor (BCF); if this exists for the substance, logKow may be used: _____

If there is a measured BCF value, the highest measured value must be used instead of logKow. This means that a substance with a logKow value ≥ 4 is not considered to be bioaccumulable if the highest measured BCF value is < 500 .

Does the raw material contain isothiazolinones? Yes No

If yes, state the content below:

The raw material contains _____ ppm of the compound of 5-chloro-2-methyl-2H-isothiazolin-3-one (CAS-no. 26172-55-4) and 2-methyl-2H-isothiazolin-3-one (CAS-no. 2682-20-4) (3:1)

The raw material contains _____ ppm of other isothiazolinones

Perfume, aroma and other aroma compounds

Does the the raw material contain perfume, aroma or other aroma compounds (e.g. essential oils, plant oils and plant extracts)? Yes No

a. Organic compounds with a steam pressure exceeding 0.01kPa, at 20°C, (does not apply to hobby paint),

but if the steam pressure is not stated, and for hobby paint, the following definition is used instead:

b. organic substances with an initial boiling point that is lower than or equal to 250°C measured at a normal pressure of 101.3 kPa.

If both steam pressure and value of initial boiling point are stated as described above, the steam pressure is always used. This does not apply to hobby paint.

⁴ Volatile aromatic compounds are volatile organic compounds in which one or several benzene rings are included in the molecule.

Nano particles

Polymer emulsions are not considered to be a nano material.

Exemptions from the requirement are given for the following:

- Pigments/colourants
- Natural minerals
- Metals (the exemption does not apply to gold, silver, copper and the metals excluded by other requirements in the criteria).

Does the raw material contain nano particles (from nano material*)? Yes No

**The definition of nano material follows the European Commission's definition of nano materials from 18 October 2011, with the exception that the limit for the particle size distribution is reduced to 1%: "Nano materials" are defined as a natural, incidental or manufactured material containing particles in an unbound state or as an aggregate or an agglomerate and where at least 50% of the particles in the size distribution by number, in one or more external dimensions, are in the size range of 1-100 nm.*

We confirm that the aforementioned declarations have been made to the best of our knowledge and according to the knowledge held at this time, based on tests and/or declarations from raw materials producers/suppliers. Reservation is made for any developments and new knowledge. If such new knowledge arises, the signatory is obliged to submit an updated declaration to Nordic Ecolabelling.

Signature of the raw material producer/supplier:

Date:	Company name:
Person responsible:	Telephone:

Appendix 4 Declaration for pigments and colourants

Name of the pigment/colourant:
Producer/supplier of the raw material:

Does the pigment or colourant contain PCB (polychlorinated biphenyls)? Yes No

If yes, is PCB only contained as an impurity or production residue? Yes No

Is the PCB present as <25ppm in pigment or colourant? Yes No

- Test report for PCB content. The PCB concentration must be tested in accordance with "Determination of low levels of chlorinated biphenyl impurities in pigments"⁵, or other relevant test method, e.g. "US EPA test method 608".

Signature of the pigment/colourant producer/supplier:

Date:	Company name:
Person responsible:	Telephone:

⁵ Chemosphere, 1984, 13(4), 499-506

Appendix 5 Declaration for residual monomers in polymers

Name of the pigment/colourant:
Producer/supplier of the raw material:

Do the polymers comply with the following requirements of the content of residual monomers? Yes No

- Specifications and/or analysis result from the polymer producer, to support fulfilment of the requirement.

The total content of residual monomers in the polymer may not exceed 100 ppm for the residual monomers classified in one or several classes, as described in Table 12 below. Statement of the quantity of residual monomers must be for a newly produced polymer.

Table 12:

According to the CLP Regulation (EC:1272/2008):	According to the Dangerous Preparations Directive 1999/45/EC:
CMR (category 1a, 1b, 2)	CMR (class 1-3)
Acute toxicity, (category 1-4)	Very toxic (T+)
Aspiration toxicity (category 1)	Toxic (T)
Specific organ toxicity on occasional exposure (category 1-2)	Hazardous to health (Xn)
Specific organ toxicity on repeated exposure (category 1-2) or Skin or Airway sensitisation (category 1, 1A, 1B).	Allergenic (R 42), (R 43)

The classification applies in accordance with the EU's Dangerous Substances Directive 67/548/EC with subsequent amendments and adjustments and/or CLP Regulation 1272/2008 with subsequent amendments. During the transition period, i.e. up to 1 June 2015, classification in accordance with the EU's Dangerous Substances Directive or the CLP Regulation may be used. After the transition period, only classification in accordance with the CLP Regulation applies.

Signature of the polymer producer/supplier:

Date:	Company name:
Person responsible:	Telephone:

Appendix 6 Declaration for paper, carton and pulp

Name of the raw material:
Producer/supplier of the raw material:

Does the paper, carton or pulp contain at least 60% w/w return fibre? Yes No

Signature of the producer/supplier:

Date:	Company name:
Person responsible:	Telephone:

Appendix 7 Wood, plywood, willow and bamboo

The appendix contains the following sub appendixes:

- 7a Origin, traceability and certified raw material
- 7b Description of the raw material and share of certified raw material
- 7c Requirements of forest certification

Appendix 7a Origin, traceability and certified raw material

(Completed by the supplier or the producer)

Supplier:
Producer:
Product type (e.g. solid wood, plywood or bamboo):

For documentation of the raw material:

- Wood type/willow/bamboo and geographical origin (country/state and region/province)
- Copy of certificate(s) for forest certification and type standard
- Share (%) of wood from certified forestry/raw material (Copy of invoice may be used as documentation)

Table 1. Overview of origin, traceability and certification

Type of wood/Raw material (Type and name)*	Geographical origin (country/state and region/province)	Forest Management (no.) Chain of Custody (no.)	Share (%) of wood from certified forestry

*Describe whether it is, for example, pine, spruce, beech, etc. and the Latin name

Signature of the producer/supplier:

Date:	Company name:
Person responsible:	Telephone:

Appendix 7b Wood, willow and bamboo

- Description of the raw material and share of certified raw material

(Completed by the producer)

For documentation of the raw material:

Detailed description of the supplier chain from cultivation to producer:

Alternatively, a flow diagram showing the supplier chain from cultivation to producer may be submitted as own document.

Table 1: Raw material purchased for the producer on an annual basis. Applies to both certified and non-certified raw material.

Type of wood/Raw material (Type and name)*	Supplier	Volume (m3 per year)	Share (%) of wood from certified forestry
Total:			

*Describe whether it is, for example, pine, spruce, beech, etc. and the Latin name

Signature of the producer/supplier:

Date:	Company name:
Person responsible:	Telephone:

Appendix 7c Wood, willow and bamboo - Requirements of forest certification

Wood included in the product must be certified by a third party, cf. the current forestry standard, which fulfils the requirement of the standard and certification system.

The following requirements apply to standards and certification systems that can be accepted by Nordic Ecolabelling.

Standards:

1. The standard must balance the economic, ecological and social interests and comply with the UN's Rio document, Agenda 21, and the Forestry Principles, and respect relevant international conventions and agreements.
2. The standard must include absolute requirements and promote the objective of sustainable forestry.
3. The standard must be generally available. The standard must be developed in an open process in which ecological, economic and social stakeholders have been invited to participate.

Certification system:

The certification system must be open and have broad national or international credibility, and it must be possible to control compliance with the requirements in the forestry standard (see above).

Certification body:

The certification body must be impartial and credible and be able to verify that the requirement in the standard is fulfilled, be able to communicate the result, and be suitable for an effective implementation of the standard.

Documentation:

Copy of the forestry standard, name, address and telephone number of the organisation that drew up the standard, and the certification body's approval report.

References must be given for persons representing parties and interest groups that have been invited to contribute to the development of the forestry standard.

The environmental labelling organisation is entitled to require further documentation in order to assess whether the requirements in the standard and the certification system are fulfilled.

In certain cases, Nordic Ecolabelling may agree to grant a licence without the wood used in production being certified in accordance with an approved forestry standard.

It must be documented in another reliable way that the wood is sourced from sustainable forestry with a level of requirements that is equivalent to the approved forestry standards.

Appendix 8 Declaration for metal

Name of the metal raw material:
Producer/supplier of the raw material:

Does the metal raw material contain chromium VI, nickel, mercury, lead or cadmium?
Yes No

Is the metal raw material covered with chromium, nickel, lead, cadmium or zinc?
Yes No

The requirement does not apply to impurities from raw materials production or processing. Impurities are considered to be residues from raw materials production/processing included in metals in concentrations of < 100 ppm. Substances that are deliberately added to a raw material or included for a purpose are not considered to be impurities, irrespective of the concentration.

Signature of the producer/supplier.

Date	Company name
Person responsible	Telephone

Appendix 9 Declaration for plastic and rubber

Name of the plastic and rubber raw material:
Producer/supplier of the raw material:

Does the raw material contain pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds? Yes No

Does the raw material contain phthalates? Yes No

Does the raw material contain halogenated organic compounds in general (includes chlorinated polymers, PVC, chlorinated paraffins, fluorinated compounds, flame retardants and organic bleach chemicals)? Yes No

Does the raw material contain carcinogenic, mutagenic and reproduction-harmful compounds (categories 1 and 2)? Yes No

Specific requirements of Natural latex and synthetic latex (SBR)

Is the 1,3-butadiene content of the raw material less than 1 mg/kg latex? Yes No

Is the total content of the following PAHs less than 0.2 mg/kg latex? Yes No

- Benzo[A]Pyrene, CAS No: 50-32-8
- Benzo[E]Pyrene, CAS No: 192-97-2
- Benzo[A]Anthracene, CAS No: 56-55-3
- Dibenzo[A,H]Anthracene, CAS No: 53-70-3
- Benzo[B]Fluoranthene, CAS No: 205-99-2
- Benzo[J]Fluoranthene, CAS No: 205-82-3
- Benzo[K]Fluoranthene, CAS No: 207-08-9
- Chrysene, CAS No: 218-01-9

The requirement does not apply to impurities from raw materials production or processing. Impurities are considered to be residues from raw materials production/processing included in metals in concentrations of < 100 ppm. Substances that are deliberately added to a raw material or included for a purpose are not considered to be impurities, irrespective of the concentration. The requirements also concern known decomposition substances.

Signature of the producer/supplier.

Date	Company name
Person responsible	Telephone

Appendix 10 Marketing of Nordic Ecolabelled writing instruments, paint, glue and tape for office and hobby use

We hereby certify that we are well acquainted with the regulations governing the use of the Nordic Ecolabel, as detailed in "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions. We agree to follow these regulations when marketing the Nordic Ecolabelled writing instruments, paint, glue and tape for office and hobby.

Further, we confirm that we are familiar with the criteria document regarding the Nordic Ecolabelling of writing instruments, paint, glue and tape for office and hobby.

We undertake to advise those individuals within the company involved in marketing the Nordic Ecolabelled product of the criteria for the Nordic Ecolabelling of writing instruments, paint, glue and tape for office and hobby and "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

Date and place	Company
Signature, contact person	
Clarification of name	Phone
Signature, marketing director	
Clarification of name	Phone

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