

The Swan labelling of
Outdoor furniture and playground equipment
Draft for public consultation , [12th August 2010](#)



Nordic Ecolabelling

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

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Swan-labelling of outdoor furniture and playground equipment

73/Draft for public consultation, 1 2th August 2010

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What is Swan-labelled outdoor furniture/playground equipment?

The purpose of the criteria is to secure low environmental impact in the production and use of outdoor furniture and playground equipment. The environmental requirements have been drawn up from a life cycle perspective and have been formulated to ensure minimum environmental impact during production, use and in the waste phase. Requirements have accordingly primarily been imposed with respect to the following:

- a) Wood raw materials from sustainable forestry operations.
- b) The use of recycled plastic and metal raw materials and a design that permits the re-use of plastic and metal.
- c) The use of chemicals with a lower environmental impact
- d) Good performance properties (safety, strength and stability)

The Swan-labelled product must be accompanied by information on how to maintain the product and recommended maintenance products. This information must also include instructions on how to proceed when the product comes to the end of its useful life.

Why choose the Swan label?

- The licence-holder may use the Swan Label logo in marketing activities. The Swan enjoys widespread renown and credibility in the Nordic countries.
- Swan-labelling represents a simple and cost-effective way of communicating a company's environmental work and commitment to its customers and suppliers.
- Embracing environmentally friendly production will also prepare the company for the introduction of mandatory environmental requirements by the authorities.
- Environmental issues are complex and learning about specific problems can be time-consuming. Swan-labelling can be used as a guide in this process.
- The Swan criteria contain more than environmental requirements, they also comprise quality requirements, since quality and caring for the environment often go hand in hand. This means that the Swan Label can also be viewed as a mark of quality

What products are eligible for Swan label?

Ecolabelling within this product group encompasses outdoor furniture (garden furniture) and playground and park equipment. Outdoor furniture means chairs, tables, armchairs, benches and sofas that are moveable. Playground equipment includes swings, slides, playhouses and other outdoor playing equipment. The product group encompasses playground equipment for domestic use and for public playgrounds – both conventional and natural playgrounds. Park equipment includes fences/railings, flower boxes, flagpoles, waste baskets and outdoor left outdoors on a permanent basis.

The product group does not include outdoor furniture containing padding or textiles. Nor does it encompass hanging benches and hammocks*. Safety surfaces for playground equipment, cycles and toys for outdoor use are not encompassed by the product.

How to apply

Licence applications may be submitted by manufacturers, importers, wholesalers and dealers.

To qualify for an ecolabel a product must meet all the general requirements as well as relevant product-specific requirements. Each requirement is labelled with the letter R (for requirement) followed by the relevant number.

All information submitted to Nordic Ecolabelling will be treated confidentially. Suppliers may submit documentation directly to Nordic Ecolabelling, where the information will be kept confidential with respect to the applicant.

Icons used in the text

Each requirement is accompanied by a description of the way in which the requirement is to be documented. Various icons are also used to make this process easier. These icons are:



Enclose



Requirement checked on-site



Submit procedures governing environmental and quality management system.

If the requirement needs an explanation (e.g. footnotes), this should be inserted directly after requirement, in italics (explanatory text).

Application

Applications must be submitted to Nordic Ecolabelling in the country in which the furniture/fitment is produced/will be on sale, see the address list on page 2. The application documents comprise an application form and documentation showing that the requirements are fulfilled. They can be downloaded from the home pages of the national secretariats.

Further information and assistance with the application process is available on the websites of the individual countries or by contacting one of the secretariats.

Sales in other Nordic countries

Registering the licence in the other Nordic countries allows the Swan Label to be used on a larger market. To do so, the following documents must be submitted to the secretariats in the countries in question:

- A completed form for registration for sales in the country in question
- Instructions for use in the language in question
- Documentation evidencing compliance with national regulations
- Documentation of membership of system for recycling products and packaging.

Registration is free of charge, but an annual fee based on turnover is payable in accordance with the regulations in force in the individual countries.

On-site inspections

Before a licence is granted, Nordic Ecolabelling will conduct an on-site inspection to verify that the requirements have been fulfilled. During the inspection, the data used in calculations, original copies of submitted documentation, measurement certificates, purchasing statistics and the like confirming adherence to the requirements must be available for examination.

Costs

An application fee is payable by companies applying for a licence. In addition, an annual fee is payable based on the sales of the Swan-labelled furniture/fitments.

Inquiries

Nordic Ecolabelling will be happy to answer any queries you may have. Please see the address list on page 2.

What are the requirements for the awarding of a Swan label?

All requirements must be fulfilled in order for a Swan licence to be awarded.

1 Materials

Where a licence is held for other Swan-labelled products that form part of outdoor furniture and playground equipment, it will not be necessary to document the individual requirements relating to such products.

Where multiple product types are produced with different compositions of materials, the materials in the products may be approved on the basis of a producer-specific list of materials. Nevertheless, a calculation must be performed for each product to ensure that all requirements are fulfilled.

If Nordic Ecolabelling accepts the use of a list of materials on the basis of the material composition, it will be accepted subject to the reservation that the individual material composition of the products must also fulfil the requirements of the criteria.

Some requirements may be documented on an annual basis at factory level. For example, an outdoor furniture manufacturer may document the requirement applicable to wood from certified forestry operations (R4) on the basis of the proportional content based on one year's consumption for the Swan label product/products. The following requirements may be documented on an annual basis: R2, R4, R8, R9, R10, R11 and R23.

R1 The composition of the outdoor furniture and playground equipment

The applicant must describe the materials contained in the product.

Materials in respect of which no requirements are imposed (e.g. stone and ceramics) must not make up more than 5 weight % of the product. In total, the product may consist of 10 weight % of materials for which no requirements are imposed.

If ingoing constituent materials are Swan-labelled, then the sub-requirements for this material will have been fulfilled. In such cases the trade name of the producer and the licence number must be quoted.



Material composition of the product with a specification of ingoing materials. Small parts such as screws, fittings and hinges need not be weighed. A specification must be provided of the proportion (%) that the individual materials make up of the total weight of the product (materials must be specified in terms of weight and weight %).

Table 1: Overview of materials and the requirements for which documentation must be provided

| Material | Level | Requirement | Form | Quantity | Relevant |
|---|--------------------------------|-------------|---------|----------|--|
| Wood | General | R2 – R4 | 1 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Wood-based panels | General (more than 5 weight %) | R5 – R7 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| | More than 10 weight % | R8 – R11 | 5 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Chemical products | General | R12 – R15 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Wood preservative | General | R16 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| | Not outdoors permanently | R17 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| | Outdoors permanently | R18 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Surface treatment of wood and wood-based panels | General | R19 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Maintenance products for wood | General | R20-R21 | 2 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Metal | General | R22 | 6 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| | More than 50 weight % | R23 | 6 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Surface treatment of metals | General | R24 – R25 | 2 and 6 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Plastic | General | R26 – R29 | 2 and 7 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| | More than 10 weight % | R30 | 7 | | Yes <input type="checkbox"/> No <input type="checkbox"/> |

2 Environmental requirements

2.1 Solid wood, willow and bamboo

The requirements encompass wood, willow and bamboo present in a product, excluding small wooden parts such as wedges and the like.

R2 Traceability/wood raw materials

All wood, willow and bamboo must be traceable. The licence holder must ensure that raw materials have been lawfully felled/harvested and do not originate in forestry environments, natural areas or agricultural areas with a need for protection for biological or social reasons. If raw materials deriving from such areas are shown to have been used, Nordic Ecolabelling may revoke the licence.

- Name (Latin and English) as well as geographical origin (country/state and region/province/municipality) and supplier for the wood types, willow and bamboo used in the products (use Form 1). If considered necessary by Nordic Ecolabelling, further documentation may be required.
- Procedures or agreement describing the safeguards in place to ensure that wood, willow or bamboo have not been unlawfully felled/harvested or derive from protected forestry environments, e.g. procedures or agreement with supplier.

R3 Biocides

After felling, wood must not be treated with insecticides classified by WHO as Type 1A or Type 1B.

The requirement applies to the treatment of timber after felling.

The WHO's website at http://www.who.int/ipcs/publications/pesticides_hazard/en contains THE WHO RECOMMENDED CLASSIFICATION OF PESTICIDES BY HAZARD AND GUIDELINES TO CLASSIFICATION 2009)

- Information from the supplier of the timber on the insecticides that are used and declaration in accordance with Form 1 for each individual product.

R4 Wood from certified forestry

The requirement encompasses solid wood and veneer. It does not apply to willow and bamboo.

70 weight % on an annual basis of all purchased pine, spruce, birch and tropical timber in the product to which the application for a Swan label applies must derive from certified forestry. 50 weight % of all other types of wood in the product on an annual basis must derive from certified forestry operations. Certification must be performed by a third party in accordance with a current forestry standard that fulfils the requirements applicable to standards and certification systems, cf. Form 1 page 2.

- Specification of the proportion of wood from certified forestry operations on an annual basis and the basis for calculation. Suppliers may use Form 1.
- Description of the system used to secure the traceability of the wood.
- Copy of the certificate duly signed and approved by a certification body. Nordic Ecolabelling may request additional documentation for the purpose of assessing whether the requirements applicable to standards, certification systems and certified proportion have been fulfilled. This might, for example, include a copy of the approval report drafted by the certification body, a copy of the forestry standard including the name, address and telephone number of the organisation responsible for drafting the standard and reference to persons representing parties and interest groupings invited to participate in the development of the forestry standard.

2.2 Panels made of wood, willow and bamboo

Wood-based panels include chipboard, fibreboard, MDF panels, HDF panels, OSB, veneer boards (plywood and parallel laminated veneer) and solid wood panels. The requirement also encompasses equivalent products made of willow and bamboo. Other equivalent raw materials may be included by submitting a request to Nordic Ecolabelling. The requirement applies only to panels present in the products in quantities in excess of 5 weight %.

R5 Ecolabelled panels

If the panel is Swan-labelled, the requirements of Chapter 1.2 will have been fulfilled.

- ☒ If the panel is Swan-labelled, the panel type and manufacturer and licence number must be specified.

R6 Chemical product and additives in the panel (e.g. surface treatment)

Chemical products for the surface treatment of wood must comply with the following requirements and the requirements of Chapter 1.3. The requirement relates to the chemical products and their chemical composition at the time at which they are added to the panel.

However, this requirement includes an exemption from R12 as regards classification as an environmental hazard. The total quantity of ingoing chemical substances classified by the chemical supplier as environmentally harmful in accordance with the Dangerous Substances Directive 67/548/EEC as adapted to REACH in accordance with Directive 2006/121/EC and the Dangerous Preparations Directive 1999/45/EC all with subsequent amendments and adaptations must be < 0,5g/kg of panel. The requirement applies to the chemical products with their chemical composition at the time they are added to the panel material. Ammonia in excess of 24% are not included in this quantity.

- ☒ For each chemical product in the panel documentation must be submitted by the chemical supplier in accordance with Form 2. The panel manufacturer must account for the total quantity of ingoing substances as g/kg of panel material classified by the chemical supplier as environmentally harmful.

R7 Formaldehyde

In the case of panels that contain formaldehyde-based additives or where the surface treatment includes formaldehyde one of the following two requirements must be fulfilled:

- 1) The content of free formaldehyde must not exceed the following limit value determined in accordance with the version of EN-120, the perforator method, in force from time to time:

This requirement is identical to the Swedish and Danish special measures specified in Standard EN 120 and is stricter than the general formulation that applies in the other countries, for example Norway and Finland.

For average values: ≤ 5 mg formaldehyde/100 g dry product for MDF panels and ≤ 4 mg/100 g dry product for all other panels.

The requirement must be fulfilled to a confidence interval of 95% of all measurement values.

The requirements apply to wood panels with a moisture content of $H = 6.5\%$.

If the panels have a different moisture content within the range 3 – 10%, analysed perforator value must be multiplied by Factor F derived from the following formulae: For chipboard panels: $F = -0.133 H + 1.86$ For MDF: $F = -0,121 H + 1.78$.

2) Emissions of formaldehyde must not exceed 0.065 mg formaldehyde/m³ air in testing in accordance with measurement method specified in Appendix 1.

- Sampling program incl. measurement methods, measurement results and measurement frequency, Appendix 1.
- If alternative 2 is chosen documentation must be provided on how a systematic quality control procedure is used to ensure that panels with a high formaldehyde content are not used before the test results are known.
- In the case of products approved in accordance with the classification system in Finland “Emission Classification of Buildings Materials”, in Class M1, a copy of a valid licence/certificate must be submitted.
- In the case of products certified in accordance with CARB of an approved third party (e.g. SP), a copy of a valid licence/certificate must be submitted.

R8 Uncertified wood raw material in the panel

The licence holder must ensure that wood raw materials do not originate in forestry environments with a need for protection for biological and/or social reasons. If it subsequently proves that wood originating in forestry environments of this type has been used, Nordic Ecolabelling may revoke the licence.

The producer must describe what safeguards are in place to ensure that wood raw material does not derive from forestry environments with a need for protection for biological and/or social reasons, e.g. procedures or agreements with suppliers.

The name of the types of wood used must be specified as must their geographical origin (country or region).

- Name of the wood types used and their geographical origin (country or region). Nordic Ecolabelling may require further documentation if there is uncertainty about whether or not the wood originates in forestry environments with a need for protection for biological or social reasons. Form 1 may be used.
- Procedures or agreements with suppliers to ensure that wood raw material do not derive from forestry environments with a need for protection for biological and/or social reasons.

2.2.1 More than 10 weight % wood-based panel

R9 Certified wood raw material in the panel

Must comply with R4.

The requirement does not encompass wood fibre panels.

- See R4.

2.2.2 Energy consumption and raw material origins of wood-based panels (including products based on bamboo and willow)

The requirement consists of two parts. One part consists of a formula where a specific points score must be achieved by dividing the various environmental parameters by a factor and adding them together. In order to fulfil the requirement, the score for the panel must exceed a threshold value. Specific requirements/threshold values are also imposed on the parameters in the formula.

R10 Energy consumption and raw material origins

Energy consumed in the production of the wood-based panel must be less than or equal to the requirements stated in the following table for electricity and fuel consumption.

| Miljøparameter | Max requirement |
|---|-----------------|
| A = Wood raw material from certified sustainable forestry (%) | None |
| B = Proportion of recycled raw material (%) | None |
| C = Proportion of renewable fuel (%) | None |
| D = Electricity consumption (kWh/m ²) | Max 1 kWh/kg |
| E = Fuel consumption (kWh/m ²) | Max 3,4 kWh/kg |

$$P = \frac{A}{25} + \frac{B}{25} + \frac{C}{25} + \left(4 - \frac{D}{0.25}\right) + \left(4 - \frac{E}{0.85}\right)$$

Requirement:

P must be at least 9.5 in the case of chipboard

P must be at least 8.0 in the case of wood fibre/veneer and laminated panels.

Origin of raw materials

In the case of building panels made of wood, the use of wood from certified sustainable forestry operations is rewarded. The proportion of wood from certified sustainable forestry operations is calculated as an annual average. The requirement does not apply to secondary products such as wood chips and sawdust from other production processes.

Energy consumption (electricity and fuel)

The requirement rewards low energy consumption and the use of renewable fuels. Renewable fuels are defined as fuel that is not fossil fuel (peat is defined as fossil fuel).

Energy consumption is calculated as an annual average.

Energy consumption calculated as kWh/kg of panel must encompass the primary panel production and the production of the ingoing raw materials in question. Primary raw materials are raw materials present in quantities in excess of 5 weight % of the finished panel. Energy consumption in extracting the raw materials is not included.

In the case of panel production, energy calculations must be based on data from and including raw material processing (ingoing conveyor belt on the production line) up to and including the finished product before surface treatment, where applicable. Energy consumed during surface treatment must not be included.

As regards the production of chemical products, e.g. adhesives, the energy account must be based on production. The energy content of raw materials must not be included. In exceptional cases, a standard value for glue of 15 MJ/kg (solution in use) may be used, divided by 12 MJ/kg for fuel and 3 MJ/kg for purchased electricity (4:1)

Nordic Ecolabelling has chosen the unit of kWh per kg or m³, but conversion to MJ (1kWh=3.6MJ) may also be used.

The energy content of various fuels can be found in Appendix 5.

If the manufacturer has a surplus of energy and sells this energy in the form of electricity, steam or heat, the quantity sold must be subtracted from the fuel consumption figure. Only fuel used in connection with building panel production must be included.

Electricity consumption is electricity purchased from an external supplier.

- Submit the calculation of P in accordance with the above formula.
- Wood raw materials are documented as shown in R9.
- Specify the proportion of recycled raw materials in the building panel and the type of raw materials in question.
- Specify the type of fuel used in the production of the panel over the last year and the fuel types are renewable. Form 5 contains standard values for various types of fuel. Specify the amount of electricity used and the number of building panels (kg or m³), produced in the last year.

R11 Emissions to water

In the case of panel material produced using wet processes (e.g. MDF) COD emissions to water ≤ 20 g COD/kg product (unfiltered sample).

- Methods of analysis, see Appendix 1. Sampling programme for waste water emissions, including measurement methods, measurement results for the last 12 months and measurement frequency.

2.3 Chemical products and materials

Requirements encompass all chemical products added to the product or used in the factory/production site or by subcontractors, including surface treatment. The requirements apply to products such as glue, varnish, stains, filler, primer, oil, soap, sealant, joint filler, colour products, binding agents, pigments, bleaching chemicals and the like. Auxiliary substances such as lubricants and cleaning products are not encompassed by the requirements.

R12 Classification of chemical products

Chemical products used in production must not be classified in accordance with the table below.

Exceptions:

In the case of additives in wood based panels, R6 grants an exemption from the requirement concerning environmental hazard. See the specific requirements for building panels in R6.

Chemical products used in high pressure laminates and classified as harmful for health. Such substances may be present in unreacted form, but if so documentation must be provided that these substances are not found^A in the finished laminate.

Wood preservative for products left outdoors permanently are exempted from this requirement. See R18 in chapter 2.4 for the requirements applicable to classification of these products.

Wood preservative for products not left outdoor permanently and containing biocides are exempted from the environmental hazard requirement.

R19 "Requirements as to surface treatment" grants an exemption as regard classification as an environmental hazard.

| Classification | Associated hazard symbol and R phrases |
|------------------------|--|
| Environmental hazard | R with R50, R50/53, R51/53, R52/R53, R52 and R53 and/or R59. |
| Carcinogenic | T with R45, R49, Xn with R40 |
| Mutagenic | T with R46, Xn with R68 |
| Toxic for reproduction | T with R60 and/or R61. Or Xn with R62 and/or R63. |
| Highly toxic | Tx (T+ in Norway) with R26, R27, R28 and/or R39 |
| Toxic | T with R23, R24, R25, R39 and/or R48 |
| Allergenic if inhaled | Xi with R42 or Xi with R43 |

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC as adapted to REACH in accordance with Directive 2006/121/EC and the Dangerous Preparations Directive 1999/45/EC with subsequent amendments and adaptations. With the transition to GHS (Globally Harmonised System) the requirements applicable to the classification of products may be converted, see Form 3.



Declaration in accordance with form 2 in Appendix 2 by the manufacturer or raw materials supplier.

^A See definition of impurities in R1.

- ☒ Product safety data sheets/product sheets in accordance with the current legislation in the country of application e.g. Appendix II of REACH (1907/2006/EC).

R13 The content of free formaldehyde in chemical products

The quantity of free formaldehyde chemical products used in the production of Nordic Ecolabelled furniture/fitments must be up to 0.001 weight % (10 ppm) in hardened glue. There is an exception for glue products with new produced polymeric, where it is permitted up to 0.1 weight % (1000 ppm) free formaldehyde.

- ☒ Product safety data sheets/product sheets in accordance with the current legislation in the country of application e.g. appendix II of REACH (1907/2006/EC) and the declaration from the chemical producer (form 2).

R14 Contents and additives in chemical products

The requirements concerns chemical products used in the productions of Swan labelled outdoor furniture or playground equipment (e.g. wood preservatives, surface treatment of wood, building panels, glue, metal and plastic.)

Exception

Wood preservative for furniture or playground equipment left outdoors on a permanent basis is exempted from this requirement. See instead R18 for specific requirements applicable to these products.

The following must not be added to/included in the chemical product or material^B:

- Halogenated organic compounds. E.g. PVC, PCB flame retardants and binding agents
- PFOA (perfluorooctanic acid and salts/esters thereof) and PFOS (perfluorooctylsulfonic acid and compounds thereof)
- Bisphenol A compounds
- Phthalates
- Aziridine and polyaziridines
- Pigments and additives based on copper, lead, boron, creosote, tin, cadmium, chromiumVI and mercury and their compounds.

^B It is accepted that ingoing substances may contain traces of substances that would otherwise be excluded in the requirements of the criteria. These are substances deriving from impurities. The trace quantity of the individual substance must not exceed 100 ppm (100 mg/kg, 0.01 weight %) in the raw material.

- The contents of alkylphenolethoxysylates and other alkylphenol derivatives^C.
 - The content of volatile organic solvents^D must not exceed 5 weight% in glue and wood preservatives for products that are not left outdoors permanently.
 - The aromatic content of solvents must not exceed 5 weight% in adhesives and wood preservatives for products that are not left outdoors permanently.
 -
- For each chemical product present in the outdoor furniture or playground equipment a declaration is required from the chemical supplier, c.f. form 2.
- Declaration from the producer of the outdoor furniture or playground equipment form 2.

R15 Nanomaterials

In the case of nanometals, nanominerals, nanocarbon compounds and/or nanoflourine compounds actively added to chemical products and used in the production of Swan labelled outdoor furniture or playground equipment, the licence applicant must submit documentation showing that the use of the nanomaterials in question will not cause problems in terms of health and the environment.

Nanoparticles are defined here as microscopic particles with dimensions of less than 100 nm. Nanometals include nanosilver, nanogold and nanocopper. Traces of nano-sized particles not added to achieve a specific function in the product are not encompassed by the requirement.

- Form 2 with declaration that nanomaterials are not used. If nanomaterials are used, documentation must be submitted showing that the use of the nanomaterial in question will not cause environmental or health problems.

2.4 Wood preservatives

Wood preservatives products must fulfil the following requirements and their requirements provided for in chap. 2.3.

R16 Durability

The product must have long durability, i.e. be resistant to fungal attack.

This requirement can be met by choosing the right sort of wood with natural long durability, constructive wood preservation, impregnation, heat treatment or surface treatment. Wood with natural long durability (durability class 1 or 2 according to EN 350-2) must not be treated with wood preservatives.

^C Alkylphenol derivatives are defined as substances that shed alkylphenols during degradation.

^D Volatile organic solvents are defined as solvents with a boiling point <250 °C at 0.013 kPa

- ☒ Description of the way in which the product is given a longer useful life based on the above parameters.

R17 Wood preservatives for products that are not left outdoors on a permanent basis

This requirement encompasses all types of wood preservatives used in production of the Swan-labelled outdoor furniture/playground equipment not left outdoors permanently.

Wood preservatives must fulfil the following biocide requirements as well as the requirements of Chap. 2.3. However, an exemption from the requirement concerning environmental harmfulness in R12 applies to wood preservatives with biocides.

The active ingredients (biocides) in maintenance products must not be potentially bioaccumulable cf. the following definition:

If a substance has been tested for bioaccumulability on fish in accordance with OECD 305 A-E and the bioconcentration factor (BCF) is > 500 , the substance is viewed as bioaccumulable. If there is no BCF value, the substance is viewed as bioaccumulable if the substance $\log K_{ow} \geq 4.0$ in accordance with OECD 107, 117 or 123 Guidelines for Testing of Chemicals (ISBN 92-64-1222144) or similar, unless proven otherwise. If the lowest measured $BCF \leq 500$ the substance is not regarded as bioaccumulable even if $\log K_{ow} \geq 4.0$. OECD test guideline 107 cannot be used in the case of surface active substances that have both fat and water soluble properties. Based on what we know today, documentation with a high degree of certainty must be presented to show that these substances and their degradation products do not represent any hazard to water-borne organisms in the longer time perspective.

Computer models (such as BIOWIN) will be accepted, but if the results of modelling are close to the threshold value, or if Nordic Ecolabelling has conflicting data, more secure information must be obtained.

- ☒ Using form 2 the chemical producer must provide a declaration that the requirements applicable to the specific chemical products are fulfilled in the case of each individual chemical product.

R18 Wood preservatives for products that are outdoors permanently (e.g. playground and park equipment)

This requirement applies to products such as playground equipment and park and street furniture intended to be left outdoors permanently^E.

^E A products is considered permantely outdoors if it is bolted to the ground or otherwise not mobile

Chemical products must not be classified as follows:

| Hazard Class | Associated symbol and R phrase |
|------------------------|-----------------------------------|
| Carcinogenic | T with R45, R49, Xn with R40 |
| Mutagenic | T with R46, Xn with R68 |
| Toxic for reproduction | T with R60, R61, Xn with R62, R63 |

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC as adapted to REACH in accordance with Directive 2006/121/EC and the Dangerous Preparations Directive 1999/45/EC with subsequent amendments and adaptations. With the transition to GHS (Globally Harmonised System) the requirements applicable to the classification of products may be converted, see Form 3.

Impregnation Class A and Class M (according to the Nordic Wood Preservation Council's classification) are not permitted.

The impregnation of the product must fulfil Class B or AB according to the Nordic Wood Preservation Council's classification scheme (Class AB corresponds to Class B NP5/HC3 and Class B corresponds to Class NP3/HC3 according to the European Standard EN 335 and EN 351). Refer to the list of approved products at <http://www.ntr-nwpc.com>

Active ingredients must not be based on arsenic, chromium, organotin compounds or creosote oil.



Using form 2 the chemical producer must provide a declaration that the requirements applicable to the specific chemical products are fulfilled in the case of each individual chemical product.

2.5 The surface treatment of wood and wood-based panels

Chemical products for the surface treatment of wood must comply with the following requirements and the requirements of Chapter 2.3 with the exception of the requirement applicable to classification as an environmental hazard. The requirement relates to the composition of the products at the time they are applied to the wood. The surface treatment requirements apply to primer, varnish, colour/stain, oil, wax, film and laminate.

R19 Surface treatment requirements

The surface treatment must comply with one of the following requirements:

1) Products for surface treatment must not be classified as an environmental hazard (N, with R50, R50/R53, R51/R53, R52/R53, R52 or R53) and may as a maximum contains 7 weight % x effectiveness of the organic solvent. The aromatic content of the solvent must not exceed 5 weight %.

2) Applications of substances classified as an environmental hazard (N, with R50, R50/R53, R51/R53, R52/R53, R52 or R53) may as a maximum be applied 14g/m² of surface. For surface treatment, the quantity of organic solvent must not exceed 35 g/m² of surface. The aromatic content of the solvent must not exceed 5 weight %.

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC as adapted to REACH in accordance with Directive 2006/121/EC and the Dangerous Preparations Directive 1999/45/EC with subsequent amendments and adaptations. During the transition to GHS (Globally Harmonised System) the classification requirement for ingoing substances may be converted using Form 3.

The following degrees of effectiveness are used for the purpose of calculation of the quantities applied (See table below). The degrees of effectiveness are standard values and must be adapted. If other degrees of effectiveness can be shown to apply, they may be used instead if documentation can be provided.

| | |
|------------------------------------|-----|
| Spray varnishing without recycling | 50% |
| Spray varnishing with recycling | 70% |
| Spray varnishing, electrostatic | 65% |
| Spray varnishing, bells/disc | 80% |
| Roller varnishing | 95% |
| Blanket varnishing | 95% |
| Vacuum varnishing | 95% |
| Dipping | 95% |
| Rinsing | 95% |

Example: If the product is surface treated with the aid of spray varnishing without recycling, the product may as a maximum contain 3.5% organic solvents (7 x 50%).

- The chemical producer must declare in Form 2 that the requirement applicable to the specific chemical products is fulfilled for each chemical product.

Specify surface treatment method.

If the requirement is documented using Alternative 2, information must be submitted to permit the calculation of the quantity supplied in surface treatment. The quantity of surface treatment used per surface (g/m²) must be specified.

2.6 Maintenance products for wood

The following requirements apply to maintenance products recommended by the producer/supplier for products made of wood. The producer must quote the trade name of the recommended product.

R20 Classification of ingoing substances

Chemical products for maintaining wood must meet the requirements specified in Chapter 2.3. However, in the case of maintenance products containing biocides, an exemption from the environmental hazard requirement in R12 applies.

- The chemical producer of maintenance products must declare on Form 2 that the requirement is fulfilled in the case of the recommended product.

R21 Biocides in maintenance products

The active ingredients (biocides) in the maintenance product must not be potentially bioaccumulable, cf. the following definition

If a substance has been tested for bioaccumulability on fish in accordance with OECD 305 A-E and its bioconcentration factor (BCF) is > 500 the substance is considered to be bioaccumulable. If there is no BCF value, the substance is considered to be bioaccumulable if its $\log K_{ow} \geq 4.0$ in accordance with OECD 107, 117 or 123 Guidelines for Testing of Chemicals (ISBN 92-64-1222144) or similar, save as otherwise proven. If the lowest measured $BCF \leq 500$ the substance is not considered to be bioaccumulable even if $\log K_{ow} \geq 4.0$.

OECD Test Guideline 107 cannot be used in the case of surface active substances that have both fat and water soluble properties. Based on our current knowledge in the case of these substances documentation with a high degree of certainty must exist that they and their degradation products do not constitute a hazard to waterborne organisms in a longer time perspective.

Computer models (such as BIOWIN) will be accepted, but if the results of model calculations are close to the threshold value or if Nordic Ecolabelling has conflicting data, more secure information shall be obtained.

- The chemical producer must declare in Form 2 that the requirement applicable to the specific chemical products is fulfilled for each chemical product

2.7 Metal

Small metal parts (screws, hinges, brackets etc.) are not included for the purpose of weight and are not encompassed by the following requirements.

2.7.1 Re-use

R22 Scope for recycling

Metal parts in the product must be separable from other materials in the product without the use of special tools to facilitate reuse.

- Description of how metal parts can be separated from other materials in the product.

R23 More than 50 weight % metal in the product

Aluminium

In the case of aluminium, at least 50 weight % of the metal in the product must comprise recycled metal (scrap). Alternatively, the smelting plant that supplies the metal must utilise at least 50% recycled aluminium in production on an annual basis.

Other metals

In the case of other metals, at least 20 weight % must comprise recycled metal (scrap). Alternatively, the smelting plant that delivers the metal must utilise at least 20% recycled metal in production on an annual basis.

- Declaration (Form 6) from the producer/supplier of metal parts.

2.7.2 Surface treatment of metal

R24 Chemical products for the surface treatment of metal

Chemical products for the surface treatment of metal must comply with the following requirements as well as the requirements in Chap. 2.3.

- Account of the chemical substances used for surface treatment in accordance with Form 2.

R25 The surface treatment of metal

Metals must not be plated with cadmium, chromium, nickel, zinc or compounds thereof. In exceptional cases, plating with chromium, nickel or zinc may be accepted in the case of small parts (screws, bolts, mechanisms etc.) if this is necessary on the grounds of heavy physical wear or parts that need to close tightly, are exposed to heavy wear or require plating for reasons of safety (for example table legs, chair legs and the low-bearing parts of playground equipment). The exception does not apply to parts that are in frequent contact with the skin of users (e.g. armrests) and parts that are surface-coated must be recyclable.

The chrome plating process must be based on trivalent chromium and no hexavalent chromium must be used in any pre or post treatment processes. Chrome plating, nickel plating and zinc plating processes must use treatment processes, iron exchange processes and membrane processes or equivalent processes enabling chemical products to be reused insofar as this is possible.

Emissions from surface treatment processes must be re-used and destroyed. The system must be closed and without emissions, with the exception of zinc where the maximum emission must not exceed:

Zink: 0.5 mg/l

- Declaration from the furniture producer or supplier of surface treated metal, Form 6.
- In the case of surface treatment with chromium, nickel or zinc:
The need for this surface treatment must be documented with the aid of tests or a report showing that the metal surface is exposed to very heavy physical

wear, is a part that needs to close tightly or needs the coating for safety reasons (play equipment).

- Test report in accordance with Form 6 and declaration documenting that parts plated with chromium, nickel or zinc can be reused.

2.8 Plastic and rubber

Small plastic parts (e.g. screws, pins and dowels) are not included for the purpose of calculating the weight proportion and are not encompassed by the following requirements.

R26 Material description and labelling of plastics

A description must be provided of the types of plastic, fillers and reinforcements in plastic parts. Parts made of plastic and weighing more than 50 g must be visibly labelled in accordance with ISO.11469.

- Declaration (Form 7) from producer or supplier of plastic.

R27 Requirements as to classification and surface treatment

For requirements applicable to chemical substances used as additives or for surface treatment, see R14. Documentation as described in R14 and Form 2.

- Account of chemical substances contained in additives and surface treatment in accordance with Form 2.

R28 Nitrosamines in rubber

The content of nitrosamines or nitrosamine soluble substances must not exceed 0.01 mg/kg and 0.1 mg/kg of vulcanised rubber respectively

- Accounts of chemical substances in additives and surface treatment in accordance with Form 2.

R29 Surface treatment of plastic

Surface treatment is permitted if it can be shown that this will not undermine the possibility of re-using the plastic and that the surface treatment process fulfils the requirements contained in R27.

- A description showing that surface treatment will not undermine the possibility of re-using the plastic

2.8.1 Requirements that apply if there is more than 10 weight % of plastic in the product

Different types of plastic materials present in quantities in excess of 1 weight % of the weight of the plastic materials must be added. If in total they make up more than 10 weight %, the following requirements must be fulfilled:

R30 Recycled/recovered plastic

In the case of products composed of more than 10 weight % plastic, at least 50% of the plastic must consist of recycled material. Recovered plastic means plastic from decommissioned plastic products or post consumer packaging or production waste from the production of an external supplier.

Recycled plastic must not contain halogenated flame-retardants. However, a level of pollutants of up to 100 ppm is permitted.

☒ Declaration (Form 7) from the producer or supplier of plastic.

2.9 Requirements as regards consumer information, refuse processing and recycling systems

R31 Information for the consumer

The producer/supplier must inform the consumer of how best to use, maintain and store the product. The information must be made available in the official language in the country in which the Swan- labelled product is marketed.

The product must be accompanied by written instructions specifying:

- The area of use/end users for which the product is intended.
- How the product must be stored during the period of the year in which it is not in use (the winter season). This requirement applies to outdoor furniture not intended for permanent outdoor use.
- How the product should be maintained, what maintenance products are best suited for the product (oils, wax etc.) and how frequently these maintenance products should be used. Specific recommendations must be provided for maintenance products, with trade names, for wood in outdoor furniture or playground equipment and these products must be available in the countries in which the product is marketed. Recommended maintenance products must comply these specific requirements applicable to maintenance products in chapter 2.6.
- The way in which the products must be handled at the end of its useful life (as waste). If the product has been treated with wood preservatives containing biocides the producer must recommend that the consumer sort treated wood so that it is not mixed with untreated wood. The consumer must be urged to not incinerate treated or proofed wood. e.g. in an open fire, in a stove, an open fireplace, or wood-burning stove or wood-fired boiler.

☒ Copy of information material accompanying the outdoor furniture or playground equipment.

R32 Production waste

Wood based waste, metal scrap and plastic waste occurring during production of the product must be reused during production, delivered for collection for recycling, used as an energy source or composted.

Wood based waste containing wood preservative must be handled in the way recommended by the authorities in the country of production.

- Description of waste handling plan with the discussion of waste fractions, waste quantities and the handling of the individual fractions.

R33 Packaging requirements and recycling systems

Packaging/wrapping must not contain chlorinated plastic.

Relevant national rules, statutes/and/or industry agreements concerning recycling systems for products and packaging must be fulfilled in the Nordic country/countries in which the ecolabelled product is marketed.

- Account of the packaging materials used by the producer/supplier.
- Declaration from the producer/supplier of chlorinated plastics are not used in the packaging.
- Documentation from the applicants of membership of an existing agreement on recycling/processing, if such schemes exist.

3 Quality requirements and the requirements of the authorities

3.1 Functional requirements

R34 Durable wood

Wooden part in the product that come in the contact with the ground must be made of a durable wood or be treated (proofed or surface treated) or protected by means of screening, so that durability class 4 EN 351-1-2007 is fulfilled.

The product must be designed in such a way that water runs off automatically.

- Description of how wood comes into contact with the ground is protected and documentation of compliance with durability class 4, c.f. EN 351-1-2007.
- Description of how the design of the wooded product enables water to run off automatically.

R35 Safety, strength and stability

The product must comply with the relevant requirement levels for safety, strength and stability relevant to the areas of application of the product.

Outdoor furniture

Outdoor furniture must as a minimum fulfil the requirement level for domestic use in accordance with EN 581-1, EN 581-2, EN 581-3 and EN 581-4. Outdoor furniture does not need to be tested in accordance with annex A of 581-2 and 581-3 (testing at high and low temperature). If the product is designed/marketed for contract use, the product must be tested to requirement levels relevant for such use.

Playground equipment for public playgrounds

Playground equipment for public playgrounds, e.g. parks and schools, must fulfil the relevant requirement level for safety and in the following standards. EN 1500 supplements EN 1176 and can therefore not stand alone.

| Standard | Area |
|-----------------|---|
| EN 1176-1 | General safety requirements |
| EN 1176-2 | Swings |
| EN 1176-3 | Slides |
| EN 1176-4 | Cableways |
| EN 1176-5 | Carousels |
| EN 1176-6 | Rocking equipment |
| EN 1176-7 | Guidance for installation, inspection, maintenance and operation. |
| EN 1500 | Natural playgrounds |

Playground equipment for domestic use

Playground equipment for domestic use must fulfil the main requirements of the Toys Safety Directive 2009/48/EC as amended. This can be safeguarded in amongst other ways by documenting compliance with the harmonised standard, EN 71-1 (Mechanical and physical properties).

If the product fulfils the requirements of some other standard than the above EN standards, an independent test institution must give a statement on the way in which the standard relates to the above requirement levels.



Information on the area of use of the product (domestic or public), the standards, test institutions and test report utilized.

- If relevant a description of how international/national standards relate to EU's requirement level.

3.2 Quality requirements and the requirements of the authority

In order to safeguard fulfilment of the swan criteria the following procedures must be implemented.

If the applicant has a certified environmental management system in accordance with ISO 14 001 or EMAS, in which the following procedures are implemented it will be sufficient for the credited audited to confirm implementation of the requirements.

R36 Responsibility for the Swan Label

One person at the business must be allocated responsibility for compliance with the Swan requirements and there must also be a contact person in touch with Nordic Ecolabelling.

- Organisational structure showing the personnel responsible for the above areas.

R37 Documentation

The licence holder must be able to present a copy of the application as well as the material on which facts and calculations are based (including test reports, documents from subcontractors and the like) underlying the documentation submitted in the connection with the application.

- Checked on site.

R38 The quality of the product

The licence holder must guarantee that the quality of the Swan-labelled product will not deteriorate during the term of validity of the licence.

- Procedures for compiling and if necessary processing complaints about the quality of these Swan labelled products.

R39 Planned changes

Planned changes that impact on the Swan requirements must be reported in writing to Nordic Ecolabelling.

- Procedures showing how planned changes are handled.

R40 Unforeseen deviations

Unforeseen deviations that impact on the Swan requirements must be reported in writing to Nordic Ecolabelling and recorded in a journal.

- Procedures showing how unforeseen deviations are handled.

R41 Traceability

The licence holder must be able to trace the Swan labelled product throughout the production process.

- Description/procedures for fulfilling the requirement.

R42 Laws and regulations

The licence holder must insure that the applicable provisions governing safety, working environment, environmental legislation and production site specific terms/licences are followed at all production sites at which the Swan labelled product is produced.

- Duly signed application form.

R43 Marketing

The Swan labelled product must be marketed in accordance with "Rules on Nordic Ecolabelling" 12 December 2001 or later versions.

- Duly completed Appendix 1.

Marketing

The Swan Ecolabel is a trade mark that enjoys a high degree of recognition and credibility in the Nordic countries. Swan-labelled products may be market using the Swan Label for as long as the licence remains in force.

The label must be placed in such a way that there is no doubt about the meaning of the labelling and in such a way that it is made clear that the product is ecolabelled.

Information on marketing can be found in rules on Nordic Ecolabelling of 12 December 2001 or subsequent version.

Registration

If the licence is to be registered in another Nordic country the following documentation must be submitted.

- Application form for registration.
- Copy of the licence certificate.
- Instructions for use in the language in question.
- Registration number for an national recycling system for products and packaging other documentation showing fulfilment of the recycling requirements.

The design of the Swan Label

The Swan Label has the following design:



licence number

Each licence is allocated a unique licence number which must be used in conjunction with the label.

Further information on the design of the label can be found on rules on Nordic Ecolabelling of 12 December 2001 or subsequent version.

Follow-up inspection

The Nordic Ecolabelling may verify that the product continues to fulfil the Swan requirements after the licence has been granted. This might for example take the form of an onsite inspection visit or random sampling.

If the products are shown not to fulfil the requirements the licence may be revoked.

Random samples may also be taken from retail outlets and these may be analysed by an impartial laboratory. If the requirements are not fulfilled, Nordic Ecolabelling may require the licence holder to pay the costs of analysis.

The duration of licence (to be updated)

Nordic Ecolabelling adopted the criteria for XX on DAY MONTH YEAR and they will remain in force until DAY MONTH YEAR.

The Ecolabelling licence will continue to apply for as long as the criteria are fulfilled and until these criteria cease to apply. The criteria may be extended or adjusted, in which case the licence will be extended automatically and the licensee will be notified.

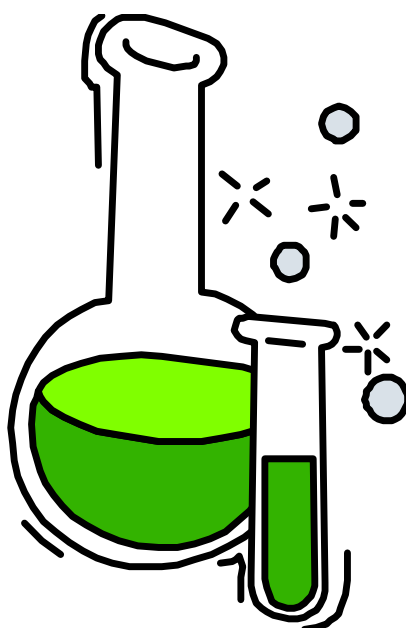
One year at the latest (before the criteria cease to apply) the notification will be provided of the criteria that will apply after the final validity date of the current criteria. The licence holder will be given the opportunity to renew the licence.

New criteria

To be updated

Appendix 1

Testing and control



4 Requirements as regards analysis and test institutions

The applicant is responsible for documentation and analysis costs.

4.1 Requirements that regards the test institution

Sampling for testing must be performed in a competent manner. The laboratory/test institution must be impartial and competent. The unprocessed data must be available for checking by the ecolabelling organization.

The laboratory performing the analysis must fulfil the general requirements contained in standard EN ISO 17025 or be an official GLP-approved laboratory. The applicant will be liable for costs in connection with documentation and analyses.

The manufacturer's own laboratory may be approved to perform analyses and tests if:

- The analyses and tests are monitored by the authorities, or if
- The manufacturer has a quality assurance system encompassing sampling and analyses and has been certified to ISO 9001 or ISO 9002 or
- The manufacturer can demonstrate that it is consistent with the initial analysis/testing performed as a parallel analysis/test by an accredited laboratory and the manufacturer's own laboratory and that the manufacturer takes samples in accordance with a predetermined sampling.

4.2 Classification of environmental hazard

In an number of cases requirements are imposed as regards the environmentally harmful property of chemical substances. Classification is based on testing and is subject to the individual exemptions stated later in this section.

This concerns requirements applicable to:

- Adhesives and binding agents in wood-based panels.
- Agents for service treatment of wood-based materials.
- Other adhesives used in production.

Biodegradability, aerobic

Testing for biodegradability is conducted using test method number 301 (A to F) in OECD Guidelines for Testing of Chemicals (ISBN 92-64-1222144) or corresponding test methods..

Bioaccumulability

If the solution of the substance in n-octanol is at least 100 times greater than in water ($Pow > 3$) the substance is regarded as bioaccumulable unless information to the contrary can be provided (OECD test guidelines 107 or 117). The bioaccumulability of a substance may also be tested on fish, c.f. OECD test guidelines 305 A-E. Bioconcentration factor (BCF) of the substance is 100 or more the substance regarded as bioaccumulable.

Ecotoxicity

Ecotoxicity (aquatic toxicity) is tested with test method number no. 201, 202 and 203 in OECD Guidelines for Testing of Chemicals or equivalent test methods.

Exemptions from the testing requirement

The following substances are exempted from testing for aquatic toxicity, biodegradability and bioaccumulability.

- Substances known to be environmentally hazardous, i.e. substances listed by the public authorities.
- Subjects with a short life under test conditions (< 1 hours for octonal / water-partition test, <1 day for all other tests, degradation products are tested as required.
- Substances that the applicant can demonstrate and not environmentally harmful.

The following are exempted from the requirement as to testing for bioaccumulability: High- molecular substances (molecular weight > 700, lowest calculated section > 9.5 Å or length > 5.5 nm).

Scientifically researched references to the literature may be used to demonstrate that the constiutence substances of the chemical product fulfil the requirements.

4.3 Formaldehyde in wood based panels

Formaldehyde

For the purpose of determining the content of free formaldehyde, the most recent applicable European standard for the perforator method is to be used. This must at all times be followed by the applicable EN 120 standard until and if the method is replaced by a different EN method. A suitable chamber method is to be used for correlation of emission potential (EN 120) expressed as mg/100g, with emission level expressed in ppm or mg/m³.

As a suitable chamber method for panels of wood and mineral wool, the European Standard: ENV 717 – 1 is recommended. To be followed by the EN standard

applicable from time to time for reference determination of emission value. The method used must be reported.

4.4 COD emissions

Test: For measuring COD-emissions to water use ISO 6060 2.nd ed 1989, NS 4748 alternatively DS 217, SFS 3020, SFS 5504, SS 028142, DIN 38409 part 41, NFT 90101, ASTM D 1252 83 or test kits that use potassium dicromate as an oxidizing agent (and with silver sulphate as a catalyst), e.g. Dr. Lange, Hack or WTW test of substances in chemical products. "Determination of the chemical oxygen demand" or equivalent.

Test frequency: In continuous production an annual average value must be used based on at least one representative daily sample per week. If new processed or internal improvements are introduced the emission level must be determined using at least 40 daily samples in succession.

Sampling: Samples of process water must be taken after external treatments and the analysis must be performed on unfiltered samples. Alternatively a sampling frequency determined by the authorities will be accepted.

4.5 Emissions to water chromium (tot), chromium (VI) and Nickel

Test methods: ISO 9174 for Ni, prEN 1233 for Cr and Standard Methods 3500-Cr D (3) ICP-MS (3), EN ISO 5667-3 2004 or HPLC ICP-MS for Cr (VI).

Sampling frequency: Emissions to water are calculated as an annual average value and based on at least one representative daily sample per week.

Sampling: Samples of process water must be taken after external treatments and the analysis must be performed on unfiltered samples. Alternatively a sampling frequency determined by the authorities will be accepted.

Appendix 2

Forms

Skjema for krav til trebaserte plater
Erklæring om forbudte innholdsstoffer og aromatiske løsningsmidler

Det hjemiske produktets navn
Produsent/importør av hjemisk produkt

| | | |
|---|-----------------------------|------------------------------|
| • Er produktet tilsett halogenerte organiske brudemidler? | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett halogenerte organiske fargeemulgerere? | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett polyklorerte bitenylter? | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett alkylfenoler? | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett ftalider? | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett pigment/løsningsstoffer basert på bly, tinn, kadmium, krom(VI) og kvikksølv og deres forbindelser? | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett aromatiske løsningsmidler? Hvis ja, ang gi innhold i vekt-%: _____ | <input type="checkbox"/> ja | <input type="checkbox"/> nei |
| • Er produktet tilsett alkylfenoloksylder eller andre alkylfenolderivat? Alkylfenoloksylder/alkylfenolderivatet skal oppgis som stoffer Hvis ja, ang gi innhold i vekt-%: _____ Oppgi testmetode og testresultater: _____ | <input type="checkbox"/> ja | <input type="checkbox"/> nei |

Produsentens underskrift: _____ (støpe) _____ (firmannavn)
(ansvarlig saksbehandler) (telefon)

Bemerk: Innhold av klassifiserte stoffer dokumenteres separat ved sikkerhetsdatablad/ leverandørbrukerveiledning, og ved utfylling av Vedlegg 4.

Form 1 Declaration, Wood raw materials

| Type of wood (Latin and English names) | Geographical origin (country, state) | Certification (see requirements on next page) | Supplier (see requirements on next page) |
|--|--|---|--|
| | | | |
| | | | |
| | | | |

Has any of the timber been surface treated with preservatives since felling? Yes No

If yes:

Is the insecticide classified by the WHO as Type 1 or 1B? Yes No

THE WHO RECOMMENDED CLASSIFICATION OF PESTICIDES BY HAZARD AND GUIDELINES TO CLASSIFICATION 2003-2004 can be found at the WHO's web site <http://www.who.int/pcs/>. Alternatively one of the Nordic Ecolabelling organisations may be contacted.

Attach 16 point product safety data sheet or equivalent documentation

Name of supplier:

(date)

(Company)

(Authorised signatory)

(Telephone)

Form 1, page 2 (2) Forestry certification requirements (Chap. 1.1)

Forestry certification requirements

Wood used in the product must be certified by a third party on the basis of a current applicable forestry standard, complying with the requirements placed on standard and certification system.

The following requirements apply to standards and certification systems that are acceptable to Nordic Ecolabelling.

The standards

- 1) The standard must balance economic, ecological and social interests and comply with the Rio Declaration's forestry principles, Agenda 21 and the Forest Principles and respect relevant international conventions and agreements.
- 2) The standard must contain absolute requirements and promote and be directed towards sustainable forestry.
- 3) The standard must be widely accepted nationally or internationally and be developed as a part of an open process in which ecological, economic and social interests are invited to participate.

The certification system

The certification system must be transparent, enjoy broad national and international credibility and be capable of verifying that the requirements of the forestry standard (see above) have been met.

The certification body

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

Documentation

- Copy of the forestry standard, name, address and telephone number of the organisation responsible for drafting the standard and the approval report of the certification body.
- References must be provided to persons representing parties and interest groups invited to participate in the development of the forestry standard.
- The ecolabelling organisation has the right to require the further information to be submitted with a view to assessing whether the requirements of the standard and the certification system have been met.

Nordic Ecolabelling may in some cases agree to grant a licence even if the wood used in production has not been certified in accordance with an approved forestry standard. If so, some other form of credible documentation must be submitted showing that the timber originates in a sustainable forestry operation with requirement levels equivalent to the approved forestry standards.

Form 2, page 1 (3) Requirements applicable to chemical products

The name and area of use of the chemical product/raw material:

Manufacturer/importer of the chemical product:

Classification of chemical products

Is the product classified in accordance with the following table? Yes No

Exceptions from the following classification may occur in the individual requirement.

| Classification | Associated hazard symbol and R-phrases |
|---------------------------------------|---|
| Environmental hazard | N with R50, R50/53, R51/53 and/or R59. |
| Highly toxic | Tx (T+ in Norway) with R26, R27, R28 and/or R39 |
| Toxic | T with R23, R24, R25, R39 and/or R48 |
| Allergenic if inhaled and sensitising | Xn with R42 or Xi with R43 |
| Carcinogenic | T with R45 or R49. Or Xn with R40 |
| Mutagenic | T with R46 or Xn with R68 |
| Toxic for reproduction | T with R60 and/or R61. Or Xn with R62 and/or R63. |

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC as adapted to REACH in accordance with Directive 2006/121/EC and the Dangerous Preparations Directive 1999/45/EC or with subsequent amendments and adaptations. With the transition to GHS (Globally Harmonised System) the requirements applicable to the classification of products may be converted, cf. Form3 in Appendix 2.

Please note that the producer is responsible for correct classification.

Product safety data sheet/data sheet In accordance with current legislation in the country of application, eg Appendix II to REACH (1907/2006/EC) for each.

Formaldehyde

Does the chemical product contain free formaldehyde? Yes No

If yes, specify content in weight %

Is the product a glue with new produced polymeric? Yes No

Form 2, page 2 The content and additives to chemical products and materials

The declaration applies to all constituent substances.

Constituent substances are all substances in the product, including additives (e.g. pigments) in the ingredients, but not pollutants from the production of raw materials. Pollutants are traces from raw material production present in the finished product in concentrations of less than 100 ppm (0.01 weight %, 100 mg/kg), but not products that have been added to a raw material or product deliberately and for a purpose, irrespective of quantity.

Note that the product must at all times meet all mandatory requirements – an exemption provided for in a specific requirement will accordingly not constitute a general exemption from the mandatory requirements.

Does the product contain any of the following:

- Halogenated organic flame retardants? Yes No
- Halogenated organic binding agents? Yes No
- PFOA, PFOS or compounds thereof? Yes No
- Bisphenol A compounds? Yes No
- Phthalates? Yes No
- Azidirine and polyazidirine? Yes No
- Pigments/ additives based on lead, tin, cadmium, boron*, copper*, Chromium VI and mercury and their compounds? Yes No
- Volatile organic compounds? Yes No
- If yes, specify quantity in weight%
- Does the product contain aromatic solvents? Yes No
- If yes, specify quantity in weight%

*Copper and boron should be permitted for preserving playground and park equipment left outdoors on a permanent basis (NTR class AB).

**Volatile organic compounds (VOC) are defined here as volatile organic compounds with an initial boiling point that is lower than or equal to 250 °C at 0.013 kPa. VOCs are volatile organic compounds with one or more benzene rings in the molecule

- Does the chemical product contain alkylphenols, alkylphenolethoxylates or other alkylphenol derivatives? Yes No
- If yes, specify quantity in weight%

Alkylphenol derivatives are defined as substances that shed alkylphenols during degradation

Does the chemical product contain nano materials? Yes No

For wood preservatives and maintenance products:

Does the product contain biocides? Yes No

If yes, provide information on the bioaccumulability of the biocide in the form of BCF value or log KOW value

Signature of producer:

| | |
|-----------|--------------|
| Date | Company name |
| Signatory | Telephone |

Form 3 Converting of requirements to GHS classification

This form specifies which requirements will apply to the classification of products and constituent substances when GHS (Globally Harmonised System) enters into force. These classifications may be used when GHS has been implemented and enters into force in the EU. During the transitional period, when according to the legislation both systems may be used, this criteria document provides for freedom of choice as to which of the two applicable classification systems are used.

Since there as yet are no official designations for use in the Nordic countries with regard to GHS, reference is made to the English terms.

Classification of the product in accordance with GHS

The product must not be classified/labelled in any of the following GHS classes:

- Ecotoxicity Acute Category 1
- Ecotoxicity Chronic Category 1
- Ecotoxicity Chronic Category 2
- Ecotoxicity Chronic Category 3
- Ecotoxicity Chronic Category 4
- Acute Toxicity Category 1
- Acute Toxicity Category 2
- Acute Toxicity Category 3
- Acute Toxicity Category 4
- Aspiration Hazard Category 1
- Specific Target Organ Toxicity after Single Exposure Category 1
- Specific Target Organ Toxicity after Single Exposure Category 2
- Specific Target Organ Toxicity after Single Exposure Category 3
- Specific Target Organ Toxicity after Repeated Exposure Category 1
- Specific Target Organ Toxicity after Repeated Exposure Category 2
- Skin Corrosion/Irritant Category 1A
- Skin Corrosion/Irritant Category 1B
- Skin Corrosion/Irritant Category 1C
- Respiratory Sensitisation Category 1
- Skin Sensitisation Category 1
- Carcinogenicity Category 1A
- Carcinogenicity Category 1B
- Carcinogenicity Category 2
- Germ Cell Mutagenicity Category 1A
- Germ Cell Mutagenicity Category 1B
- Germ Cell Mutagenicity Category 2
- Reproductive Toxicity Category 1A
- Reproductive Toxicity Category 1B

- Reproductive Toxicity Category 2
- Reproductive Toxicity Additional Labelling for Effect on or via Lactation
- Organic Peroxides Type A
- Organic Peroxides Type B
- Self-reactive substances and Mixtures Type A
- Self-reactive substances and Mixtures Type B
- Oxidising Gases Category 1
- Oxidising Liquid Category 1
- Oxidising Solid Category 1
- Oxidising Solid Category 2
- Oxidising Solid Category 3
- Flammable Gases Category 1
- Flammable Aerosols Category 1
- Flammable Liquids Category 1

Ingoing chemical substances in GHS class:

- 'Ecotoxicity Chronic Category 1' must not be present in quantities in excess of 0.10 weight %
- 'Ecotoxicity Chronic Category 2' must not be present in quantities in excess of 0.0 weight %
- 'Ecotoxicity Acute Category 1', 'Ecotoxicity Chronic Category 3', and/or 'Ecotoxicity Chronic Category 4' may each individually be present in a quantity of no more than 2.0 weight %.

The total of chemical substances in GHS classes 'Ecotoxicity Acute Category 1', 'Ecotoxicity Chronic Category 1', 'Ecotoxicity Chronic Category 2', 'Ecotoxicity Chronic Category 3', and/or 'Ecotoxicity Chronic Category 4', must not be present in quantities in excess of 4.0 weight %.

Form 4 Overview of R-phrases and associated names

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

R59: Dangerous for the ozon layer

R26: Very toxic by inhalation

R27: Very toxic in contact with skin

R28: Very toxic if swallowed

R39: Danger of very serious irreversible effects

R23: Toxic by inhalation

R24: Toxic in contact with skin

R25: Toxic if swallowed

R48: Danger of serious damage to health by prolonged exposure

R68: Possible risk of irreversible effects

R42: May cause sensitisation by inhalation

R43: May cause sensitisation by skin contact

R45: May cause cancer

R49: May cause cancer by inhalation

R40: Limited evidence of a carcinogenic effect

R46: May cause heritable genetic damage

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

Form 5 Calculation of energy consumption

Calculation of energy consumption

Energy consumption, kWh/kg panel, must encompass the primary panel production and the production of the constituent key raw materials. Key raw materials are defined as raw materials that exceed 5% by weight of the finished product. Energy consumption during extraction of raw materials is not to be included.

The energy account for the panel production must be based on data from the handling of raw materials (incoming conveyor belt on the production line) to the finished product before surface treatment, if any. Energy consumption during surface treatment is not included.

In the case of the production of chemical products, for example adhesive, the energy accounts must be based on data for production. The energy content of the raw material must not be included in the calculation. In exceptional cases a standard value of 15 MJ/kg (solution for use) for adhesive may be used, broken down as 12 MJ/kg for fuel and 3 MJ/kg for electricity purchased from an outside supplier (4:1).

Nordic Ecolabelling uses the unit kWh per kg or m³ for energy. However, conversion to MJ (1kWh=3.6MJ) is also possible.

Purchased electricity is defined as electricity purchased from external suppliers. Electricity generated on the premises must be added to the fuel consumption. Fuels consumption includes both purchased fuel and fuel deriving from production waste.

If the producer has surplus energy and sells this surplus in the form of electricity, steam or heat, the quantity sold must be deducted from total consumption.

The energy content of fuel must be calculated from the data given in the table below. If electrical energy is produced on site the consumption of fuel can be calculated in one of the following ways:

- The actual consumption of fuel calculated on annual basis
- Consumption of on-site electrical energy is multiplied with 1.25

Form 5**Theoretical energy content and emission factors.**

Sources: Statistics Norway: Energy statistics 1995, SFT Report 9513: Incinerators. Guidance for case officers and SFT: Emission coefficients (Audun Rosland, 1987).

| 4.5.1 Energy sources | Theoretical energy content GJ/tons | Density¹ | Theoretical energy content MWh/m³ ² | Energy content GJ/unit³ | Tons CO₂ per ton energy raw material | Ton CO₂ per m³ ⁴ | Ton CO₂ per GJ |
|---|---|----------------------------|--|---|--|--|--|
| Coal (anthracite) | 28.1 | - | 7.8 | 28.1 | 2.42 | - | 0.08612 |
| Coke (from coal) | 28.5 | - | 7.9 | 28.5 | 3.19 | - | 0.11193 |
| Wood fuel | 16.8 | 0.5 | 4.7 | 8.4 | 0 | 0 | 0 |
| Waste liquor (non- volatile) | 14 | - | 3.9 | 14 | 0 | 0 | 0 |
| Wood waste (dry) | 16.8 | - | 4.7 | 16.8 | 0 | 0 | 0 |
| Crude oil | 43 | 0.85 | 10.2 | 36.6 | 3.2 | 2.72 | 0.074 |
| Natural gas | 49.2 | 0.85 | 11.6 | 0.042 | 2.75 | 2.34 | 0.056 |
| LPG | 46.1 | 0.51 | 6.5 | 23.5 | 3 | 1.53 | 0.065 |
| Petrol | 43.9 | 0.74 | 9.0 | 32.5 | 3.13 | 2.32 | 0.071 |
| Paraffin | 43.1 | 0.79 | 9.5 | 34.0 | 3.15 | 2.49 | 0.073 |
| Light fuel oil | 43.1 | 0.84 | 10.1 | 36.2 | 3.17 | 2.66 | 0.074 |
| Diesel | 43.1 | 0.84 | 10.1 | 36.2 | 3.17 | 2.66 | 0.074 |
| Marine gas oil | 43.1 | 0.84 | 10.1 | 36.2 | 3.17 | 2.66 | 0.074 |
| Heavy crude oil | 40.6 | 0.97 | 10.9 | 39.4 | 3.2 | 3.10 | 0.079 |

1 All figures in tonnes except for Wood Fuel, where figures are in tonnes per firm cubic meter (ton/fm³) and Natural Gas which is in kg per standard cubic meter (kg/Sm³).

2 All figures in MWh/m³, except for Natural Gas which is given in kWh/Sm³ and Coal, Coke, Wood Fuel, Waste liquor and Waste wood which are given in MWh/ton.

3 All figures in GJ/m³ except for Coal, Coke, Waste liquor and Waste wood which are in GJ/ton, Natural Gas which is given in GJ/ton and Wood Fuel in GJ/fm³.

4 Natural Gas in kg/Sm³.

Example of a calculation using the standard value for adhesives:

A panel contains 12% adhesive (solution for use). This represents 0.12 kg of adhesive (solution for use) per kilogram of panel. Applying the standard value in the calculation of energy points for adhesive results in:

0.12 kg adhesive/ kg panel x 15 MJ/ kg adhesive = 1.8 MJ/ kg panel.

Conversion to kWh per kg panel: (1.8 MJ/kg panel)/3.6 = 0,5 kWh/kg panel

Ratio (4:1) for fuel and el: 0.4 kWh fuel/kg panel and 0.1 kWh el/kg panel

Entered in the formula for calculating energy points in chap. 1.3, Reg. R18
(Reference value applies per kg of panel)

$$E = \frac{(\text{Pchsd electr.})}{(0.7\text{kWh/kg})} + \frac{(\text{Fuel})}{(1.9\text{kWh/kg})} = \frac{0.1\text{kWh/kg}}{(0.7\text{kWh/kg})} + \frac{0.4\text{kWh/kg}}{(1.9\text{kWh/kg})} = 0.142 + 0.211 = \mathbf{0.35}$$

Energy points for glue are added to energy points for the primary panel production and other production of relevant ingoing raw materials.

Form 6 Declaration of metals

Name of product: _____

Producer/supplier: _____

Can the metal parts be separated from the other materials without the use of special tools?

Yes No

Submit description of how this is done

Is the metal part plated with cadmium, chromium, nickel, zinc and their compounds?

Yes No

The chrome plating process must be based on trivalent chromium and no hexavalent chromium must be used in any pre or post treatment processes. Chrome plating, nickel plating and zinc plating processes must use treatment processes, iron exchange processes and membrane processes or equivalent processes enabling chemical products to be reused insofar as this is possible.

Emissions from surface treatment processes must be re-used and destroyed. The system must be closed and without emissions, with the exception of zinc where the maximum emission must not exceed:

Zink: 0.5 mg/l



Submit test results confirming compliance with the emission limits on chromium, chromium VI and nickel in PARCOM Recommendation 92/4 (Parcom/Oscom)

How large a proportion of the metal raw material consists of recycled material?

Aluminium: _____

Other metals (e.g. steel): _____



Attach: Report from the smelting plant documenting the proportion of recycled material.

Signature of producer of metal:

(Date)

(Company name)

Form 7 Plastics declaration

Name of product and chemical name of plastic material: _____

Producer/supplier: _____

Does the plastic material contain fillers and/or reinforcement? Yes No
If yes, state which types and in what quantities

Can plastic parts be separated from other materials without
the use of special tools? Yes No
Submit description of how this is done

Are plastic parts weighing more than 50 g labelled for recycling in
accordance with ISO 11 469? Yes No
If no, state which equivalent standard has been used.

Has the surface of the plastic part been coated? Yes No

How large a proportion of the plastic material is recycled/recovered material?

Recycled/recovered plastic means post-consumer plastic from used products or used packaging as well as production waste from external suppliers. Attach a report on the origins of the recovered plastic.

Signature of producer:

| | |
|-----------|--------------|
| Date | Company name |
| Signatory | Telephone |

Form 8 Marketing

The marketing of ecolabelled outdoor furniture and playground equipment

We hereby confirm that we are familiar with the rules governing the use of the Nordic Swan ecolabel as described in “Regulations on the Nordic ecolabelling of products” of 12 December 2001 or subsequent versions and we hereby undertake that the marketing of the product will be in accordance with these regulations.

We also confirm that we are familiar with the criteria governing outdoor furniture and playground equipment.

We undertake to ensure that the personnel within our company responsible for marketing the ecolabelled products will receive information on the criteria governing the ecolabelling of outdoor furniture and playground and “Regulations on the Nordic ecolabelling of products” 12 December 2001 or subsequent versions.

| | |
|----------------------------------|--------------|
| Place and date | Company name |
| Authorised signatory | Telephone |
| Person responsible for marketing | Telephone |

In the event of changes in personnel a new version of this form must be filed with the ecolabelling organisation.