

## Appendix 4      Chemicals used in production of panels

To be used in conjunction with an application for a license for the Nordic Swan Ecolabel of Panels and Mouldings for interior use.

Declaration is made by the chemical manufacturer or supplier based to the best of their knowledge at the given time and available knowledge on the chemical product with reservations for new advances/knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

This declaration shall be filled for chemical products used in the production of the Nordic Swan Ecolabelled panels and mouldings for interior use (incl. laminate and melamine), such as adhesives, resins, and waxes.

*Chemical products used in the manufacture of paper, and to print patterns on the decor paper, need not be declared. Neither need auxiliary substances such as lubricants and detergents be declared.*

Name of chemical product:

Function of the chemical product:

Ingoing substances in the raw material/ingredient (chemical name, CAS-number, amount in weight-%):

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled product. Impurities are not regarded as ingoing substances and are exempt from the requirements. Ingoing substances and impurities are defined below, unless stated otherwise in the requirements.

***Ingoing substances:*** all substances in the chemical product regardless of amount, including additives (e.g., preservatives and stabilisers) from the raw materials. Substances known to be released from ingoing substances (e.g., formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.

***Impurities:*** Residues from production, incl. raw material production, which remain in the chemical product at concentrations below 1000 ppm (0.1000% by weight).

*Examples of impurities are residues of reagents incl. residues of monomers, catalysts, by-products, scavengers (i.e. chemicals that are used to eliminate/minimise undesirable substances), detergents for production equipment and carry-over from other or previous production lines.*

<b>O30 Classification of chemical products used in the production</b>		
<b>Is the chemical product classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.</b>	<b>Yes</b>	<b>No</b>
H400 – Toxic to the environment, Aquatic Acute 1		
H410 – Toxic to the environment Aquatic Chronic 1		
H411 – Toxic to the environment Aquatic Chronic 2		
H420 – Toxic to the environment Ozone		
H300 – Acute toxicity; Acute Tox 1 or 2		
H310 – Acute toxicity; Acute Tox 1 or 2		
H330 – Acute toxicity; Acute Tox 1 or 2		
H301 – Acute toxicity; Acute Tox 3		
H311 – Acute toxicity; Acute Tox 3		
H331 – Acute toxicity; Acute Tox 3		
H370 – Specific organic toxicity, STOT SE 1		
H372 – Specific organic toxicity, STOT RE 1		
H350 – Carcinogenic, Carc. 1A or 1B		
H351 – Carcinogenic, Carc. 2		
H340 – Germ cell mutagenic, Mut. 1A and 1B		
H341 – Germ cell mutagenic, Mut. 2		
H360 – Reproductive toxicity, Repr. 1A or 1B		
H361 – Reproductive toxicity, Repr 2		
H362 – Reproductive toxicity, Lact.		
<p><b>The following are exempted from the requirement:</b></p> <ul style="list-style-type: none"> <li>- Classification H351 for adhesive products containing methylene diphenyl diisocyanate (MDI).</li> <li>- Classifications H350, H341, H301, H311 and H331 for adhesive products and resins containing formaldehyde (CAS no. 50-00-0). Formaldehyde emissions are regulated in a separate requirement.</li> <li>- Classifications H341, H301 and H331 for resins containing a maximum of 10% by weight of phenol (CAS no. 108-95-2) used in laminate and plywood.</li> <li>- Classifications H301, H311, H331 and H370 for resins containing a maximum of 10% by weight of methanol (CAS no. 67-56-1).</li> <li>- Classifications H351 and H361 for resins containing melamine (CAS no. 108-78-1).</li> <li>- UV curing products are exempted from classification H411 under the following conditions: There must be a controlled closed process where no discharge to recipient takes place. Spillage and general waste (e.g., cleaning residue) must be collected in containers approved for hazardous waste and handled by a waste contractor.</li> </ul>		

If **yes**, please state the CAS no., chemical name, and level (in ppm, % by weight or mg/kg). Also, state whether the substance is contained in the form of an impurity or an added substance or if the above-mentioned exceptions apply.

<b>O31 Classification of ingoing substances</b>		
<b>Does the chemical product contain substances classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.</b>	<b>Yes</b>	<b>No</b>
H350 – Carcinogenic, Carc 1A and 1B		
H351 – Carcinogenic, Carc. 2		
H340 – Germ cell mutagenic, Mut. 1A or 1B		
H341 – Germ cell mutagenic, Mut. 2		
H360 – Reproductive toxicity, Repr. 1A and 1B		
H361 – Reproductive toxicity, Repr. 2		
H362 – Reproductive toxicity, Lact.		
EUH380 - Endocrine disruption for human health, ED HH1		
EUH381 - Endocrine disruption for human health, ED HH2		
EUH431 - Endocrine disruption for the environment, ED ENV 1		
EUH431 - Endocrine disruption for the environment, ED ENV 2		
EUH440 - Persistent, Bioaccumulative and Toxic properties, PTB		
EUH411 - Very Persistent, Very Bioaccumulative properties, vPvB		
EUH450 - Persistent, Mobile, and Toxic properties, PMT		
EUH451 - Very Persistent, Very Mobile properties, vPvM		
<p><b>The following are exempted from the requirement:</b></p> <ul style="list-style-type: none"> <li>- Adhesive containing methylene diphenyl diisocyanate (MDI) classified as H351.</li> <li>- Adhesive and resin containing formaldehyde (CAS no. 50-00-0) classified as H350 and H341. Formaldehyde emissions are regulated in a separate requirement.</li> <li>- Resin containing maximum 10% by weight of phenol (CAS no. 108-95-2) classified as H341 used in laminate and plywood.</li> <li>- Resin containing melamine (CAS no. 108-78-1) classified as H351 and H361.</li> <li>- Titanium dioxide (CAS no. 13463-67-7) classified as H351.</li> <li>- 1,1,1-Trimethylolpropane (TMP, CAS no. 77-99-6) classified as H361.</li> </ul>		

If **yes**, please state the CAS no., chemical name, and level (in ppm, % by weight or mg/kg). Also, state whether the substance is contained in the form of an impurity or an added substance or if the above-mentioned exceptions apply.

<b>O32 Prohibited substances</b>		
<b>Does the chemical product contain any of the following substance groups?</b>	<b>Yes</b>	<b>No</b>
Substances on the Candidate List The Candidate List can be found on the ECHA website: <a href="http://echa.europa.eu/candidate-list-table">http://echa.europa.eu/candidate-list-table</a> - Exemption applies to melamine (CAS No. 108-78-1)		
Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) PBT and vPvB in accordance with the criteria in Annex XIII of REACH		
Halogenated organic compounds Exemptions applies to: - bronopol, IPBC, MIT and CMIT/MIT (3:1). These are addressed in a separate requirement, see requirement O35). - non-aromatic chlorinated organic compounds used as hardeners in 2-component adhesives, and which replaces traditional formaldehyde containing adhesives.		
Per- and polyfluoroalkyl substances (PFASs), e.g., PFOA and PFOS		
Butylhydroxytoluene (BHT, CAS No. 128-37-0)		
Aziridine and polyaziridines		
Bisphenols and bisphenol derivatives - Bisphenol A used in the production of epoxy acrylate is not covered by the requirement. - Assessment of regulatory needs: Bisphenols. ECHA- 16 December 2021: Section 2.1: Bisphenols for which further EU RRM is proposed – restriction <a href="https://echa.europa.eu/documents/10162/c2a8b29d-0e2d-7df8-dac1-2433e2477b02">https://echa.europa.eu/documents/10162/c2a8b29d-0e2d-7df8-dac1-2433e2477b02</a>		
APEO (alkylphenol ethoxylates) and APD (alkylphenol derivatives/alkylphenols) Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.		
Phthalates - Phthalates are esters of 1,2-benzenedicarboxylic acid (orthophthalic acid).		
Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds.		
Endocrine disruptors: Substances on the EU member state initiative "Endocrine Disruptor Lists", List I, List II and List III, see following links: List I: <a href="https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu">https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu</a> List II: <a href="https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption">https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption</a> List III: <a href="https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities">https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities</a> Substances that are transferred to one of the corresponding sub-lists "Substances no longer on list" and that no longer feature on Lists I–III are not prohibited. However, this does not apply to the substances listed in Sub-List II that were evaluated on the basis of regulations or directives that do not have provisions for identifying endocrine disruptors (e.g., the Cosmetics Regulation). These substances may have endocrine disrupting properties. Nordic Ecolabelling will assess these substances on a case-by-case basis, based on the background information provided in sub-List II.		

If **yes**, please state the CAS no., chemical name, and level (in ppm, % by weight or mg/kg). Also, state whether the substance is contained in the form of an impurity or an added substance or if the above-mentioned exceptions apply.

<b>O33 Antibacterial substances</b>		
<b>Please state:</b>	<b>Yes</b>	<b>No</b>
Does the chemical product and nanomaterials* contain antibacterial or disinfecting properties?  The term antibacterial means chemical products that prevent or inhibit growth of microorganisms, such as bacteria or fungi. Silver ions, silver nanoparticles, gold nanoparticles and copper nanoparticles are classed as antibacterial agents. * Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01).		

The following is exempted from the requirement:

- Preservatives used to preserve the chemical product, so-called in-can preservatives.

**If yes**, please state the CAS no., chemical name, and level (in ppm, % by weight or mg/kg). Also, state whether the substance is contained in the form of an impurity or an added substance or if the above-mentioned exceptions apply.

<b>O34 Nanomaterials</b>		
<b>Please state:</b>	<b>Yes</b>	<b>No</b>
Does the chemical product contain nanomaterials/-particles?		
<p>Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01):</p> <p>'Nanomaterial' means a natural, incidental, or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:</p> <p>(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;</p> <p>(b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;</p> <p>(c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.</p>		
<p>The following are exempted from the requirement:</p> <ul style="list-style-type: none"> <li>- Pigments. This exemption does not include pigments added for purposes other than colouring.</li> <li>- Naturally occurring inorganic fillers in accordance with annex V point 7 in REACH.</li> <li>- Synthetic amorphous silica (SAS). This applies to non-modified synthetic amorphous silica and surface-treated pyrogenic silica, as long as the silica particles form aggregates or agglomerates in the end product.</li> <li>- Polymer dispersions</li> </ul>		

**If yes**, please state the CAS no., chemical name, and level (in ppm, % by weight or mg/kg). Also, state whether the substance is contained in the form of an impurity or an added substance or if the above-mentioned exceptions apply.

<b>O35 Preservatives</b>			
<b>Please state if content of preservatives exceeds the limit values below</b>		<b>Yes</b>	<b>No</b>
<b>Preservative:</b>	<b>Limit value</b>		
Bronopol	< 500 ppm (0.05% by weight)		
IPBC (iodopropynyl butylcarbamate)	< 2000 ppm (0.20% by weight)		
Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one / 2-methyl-4-isothiazolin-3-one)	≤ 15 ppm (0.0015 % by weight)		
MIT (2-methyl-2H-isothiazol-3-one)	≤ 15 ppm (0.0015 % by weight)		
Total amount of isothiazolinones	≤ 500 ppm (0.05% by weight).		

**If yes**, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg) for each preservative.

<b>O36 Volatile organic compounds in adhesives</b>		
<b>Please state:</b>	<b>Yes</b>	<b>No</b>
<p>Does the adhesive contain any VOC (volatile organic compound) and/or VAH (volatile aromatic compound)?</p> <p>Volatile organic compounds (VOC), including volatile aromatic compounds (VAH), may be present in the adhesive to a maximum of 3% by weight.</p> <p>Does the adhesive comply with the requirement?</p> <p>VAHs may be present in the adhesive to a maximum of 0.1% by weight VOC may be present in the chemical product to a maximum of 1% by weight and VAH of 0.1% of weight.</p> <p>VOC are defined as any organic compound having an initial boiling point less than or equal to 250C measured at a standard pressure of 101.3 kPa.</p>		
<p>The following are exempted from the requirement:</p> <p>Resin used in the production of laminate is exempted from the requirement provided that the laminate meets the emission requirements in O49.</p>		

**If yes**, please state the CAS no., chemical name, and level (in ppm, % by weight or mg/kg). Also, state whether the substance is contained in the form of an impurity or an added substance or if the above-mentioned exceptions apply.

<b>O37 Free formaldehyde</b>		
<b>Please state:</b>	<b>Yes</b>	<b>No</b>
<p>Does the content of free formaldehyde (from formaldehyde not deliberately added or from formaldehyde-releasing substances) exceed 0.02% by weight (200 ppm) in the chemical product?</p> <p>For adhesive products, up to 0.2% by weight (2000 ppm) of free formaldehyde is permitted. The requirement applies to the pure adhesive before mixing with any hardener.</p> <p>The following are exempted from the requirement:</p> <p>Resin used in the production of laminate is exempted from the requirement provided that the laminate meets the emission requirements in O49.</p>		

**If yes**, please specify source of formaldehyde, i.e., actively added or because of release or decomposition from another substance and theoretical amount of formaldehyde in the product. Please state also if the above-mentioned exceptions apply.

Signature of chemical product manufacturer

Date	Company
Signature by contact person	
Name of contact person	Phone