Nordic Ecolabelling of

Chemical building products

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Consultation version

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

Addresses

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

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What is a Nordic Ecolabelled Chemical building product?

A Nordic Ecolabelled chemical building product is amongst the least environmentally harmful within its product group. The Nordic Ecolabel shows that the product fulfills strict environmental and health requirements.

For chemical building products less impact on the environment and health since chemicals labelled as environmentally harmful or with health related classifications are limited in combination with less pollution to air and water.

Nordic Ecolabelled chemical building products:

- Contain low levels of substances that are harmful to health and the environment
- Have low emissions to air and water
- Are effective and meet tough performance standards

Why choose the Nordic Ecolabel?

- Environmental issues are complex. It can take a long time and extensive resources to gain an understanding of a specific area. Nordic Ecolabelling can be seen as aid in this work.
- The Nordic Ecolabel is a cost-effective and simple way of communicating environmental work and commitment to customers and suppliers.
- Reducing environmental impact often creates scope for lowering costs, such as by cutting the consumption of energy and reducing amounts of packaging and waste.
- The Nordic Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Ecolabel?

Chemical building products refers to liquid or non-hardened products for use in building work both indoors and outdoors, and on different substrates. Until further notice, the product group covers the following products for manual and machine application:

- Adhesives*
- Sealants
- Fillers
- Outdoor paints and varnishes**
- Indoor paints and varnishes only for industrial application***

** Here adhesives refer to products such as wood adhesive, grab adhesive and wallpaper paste. The product group does not include adhesives for industrial use for purposes such as furniture production or panelling.*

*** Outdoor paints and varnishes cover products that are applied manually and by industrial processes.*

**** Criteria already exist for the Nordic Ecolabelling of indoor paints and varnishes, and thus these cannot be ecolabelled under the criteria below. Industrial indoor paints and varnishes refers here to paints that are used and manufactured for industrial applications such as painting furniture/panels.*

Solid building products such as insulation materials and plastic products, pure concrete, etc. cannot be Nordic Ecolabelled under these criteria. Criteria already exist for Nordic Ecolabelling, for example, houses, windows and external doors, floors, furniture and fixtures and fittings (including internal doors and stairs), building panels, sustainable wood etc.

How to apply

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

Icons in the text

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

✉ Enclose

🔑 The requirement checked on site

Application

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

The application must consist of a completed application form together with all of the documentation required to demonstrate compliance with the requirements specified in the criteria document (this is specified for each requirement). The application form must specify in which Nordic countries the products in question are to be sold and the estimated turnover from the products in each country.

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

Sales in the Nordic region

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

On-site inspection

In connection with handling of the application, Nordic Ecolabelling normally performs an on-site inspection to ensure adherence to the requirements. For such an inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics, and similar documents that support the application must be available for examination.

Costs

An application fee is charged to companies applying for a licence. There is an additional annual fee based on the turnover of the Nordic Ecolabelled chemical building product.

Enquiries

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

What are the requirements of the Nordic Ecolabelling?

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

1 General environmental requirements

The requirements in Chapter 1 "General environmental requirements" apply to all constituent substances unless otherwise stated.

The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers) but does not include impurities from primary production. Impurity refers to residues from primary production which may be found in the finished product at concentrations below 100 ppm (0.0100% by weight, 100 mg/kg), but not substances that have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity.

Impurities of over 1.0% concentration in the primary product are, however, regarded as constituent substances. Substances known to be degradation products of the constituent substances are also themselves considered to be constituent substances.

O1 Information about the product

The applicant must give detailed information on the chemical building product to which the application relates. The following information is required:

- Describe the product and its application method and the way in which it fulfils the definition of a product that qualifies for a Nordic Ecolabel.
- If the product forms part of a component system that jointly ensures the functioning of the product, the entire product must be Nordic Ecolabelled and not simply parts of it (e.g. two-component varnishes comprising a base and a hardener). The requirement thus refers to the individual product and not to products in the same range with different functions (e.g. systems for exterior painting comprising primer, undercoat and paint).
- Formulation detailing complete composition with a specification of all constituent substances (see definition of constituent substances in Chapter 1). The description must include:
    - The chemical name, trade name and CAS no. of the constituent substances
    - The function of each constituent substance
    - The boiling point (for constituent organic substances, where relevant)

☒ Description of the product in accordance with the definition of what may be Nordic Ecolabelled.

☒ Description of how the product is to be used to achieve functionality (as a single component or part of a multi-component system) and what application method it is intended for.

☒ Formulation detailing complete composition with a specification of all constituent substances, as set out in Appendix 3.

O2 Classification of the product

The product must be classified in line with current legislation (CLP Regulation (EC) No 1272/2008 or the EU's Dangerous Preparations Directive 1999/45/EC as amended in 2008 or later) and must not be classified/labelled as listed in Table 1 below.

Table 1 Classification of the product

Classification	Hazard category and hazard phrase/Hazard symbols and risk phrases	
Hazard class	**CLP Regulation 1272/2008**	**EU's Dangerous Preparations Directive 1999/45/EC, 2008**
Toxic to aquatic organisms	Category acute 1 H400, Category chronic 1 H410, Category chronic 2 H411, Category chronic 3 H412, Category chronic 4 H413	N with R50, R50/53, R51/53, R52, R53, R52/53 without N
Hazardous to the ozone layer	H420	R59
Acute toxicity	Category 1-4: H300, H310, H330, H301, H311, H331, H302, H312, H332, H370, H372	Tx (T+ in Norway) with R26, R27, R28, R39, T with R23, R24, R25, R39, R48, Xn with R20, R21, R22
Specific target organ toxicity (STOT) with single and repeated exposure	STOT SE category 1 with H370, category 2 with H371, STOT RE category 1 with H372, category 2 with H373	Tx (T+ in Norway) with R39, T with R39,R48, Xn with R68
Aspiration hazard	Category 1 with H304	Xn with R65
Airway or skin sensitising	Category 1 with H334, Category 1 with H317, and the product must not contain constituent substances in quantities that result in the label "Contains (name of sensitising substance), may cause an allergic reaction"*	Xn with R42, Xi with R43, and the product must not contain constituent substances in quantities that result in the label "Contains (name of sensitising substance), may cause an allergic reaction"*
Skin corrosion or irritation	Skin corr. 1A/1B/C with H314	C with R34, R35
Carcinogenic	Carc 1A/1B/2 with H350, H350i or H351	T with R45 and/or R49 (Carc 1 or Carc 2) or Xn with R40 (Carc 3)
Mutagenic	Mut 1A/B/2 with H340, H341	T with R46 (Mut 1 or Mut 2), Xn with R68 (Mut 3)
Toxic for reproduction	Repr 1A/1B/2 with H360, H361, H362	T with R60, R61, R64, R33 (Repr 1 or Repr 2), Xn with R62, R63, R64, R33 (Repr 3)
Explosive	Category 1.1-1.6 with H200, H201, H202, H203, H204 or H205	E with R2 and R3
Oxidising	H240, H241, H242, H270, H271, H272	O with R7, R8 and/or R9
Highly flammable	H220, H221, H224, H242	Fx (F+ in Norway) with R12

** Outdoor paints and varnishes are exempted from this where they are classified as H317 (Xi with R43) or require the label "Contains (name of sensitising substance), may cause an allergic reaction" if this is due to the use of isothiazolinones or iodopropynyl butylcarbamate (IPBC) – see further details on this exemption in O5.*

Note that responsibility for correct classification lies with the manufacturer.

☒ Safety data sheet/product sheet in accordance with Annex II of REACH (Directive 1907/2006) for each product in the application.

O3 Classification of constituent chemical substances

The product must not contain chemical substances that are or may degrade into substances that are classified as carcinogenic (Carc), mutagenic (Mut) or toxic for reproduction (Rep), according to CLP Regulation (No) 1272/2008 or the EU's Dangerous Substances Directive 67/548/EEC as amended, see Table 2.

Table 2 Classification of constituent substances

Hazard class	Associated hazard symbols and risk phrases	
	CLP Regulation 1272/2008	**EU's Dangerous Preparations Directive 1999/45/EC, 2008**
Carcinogenic	Carc 1A/1B/2 with H350, H350i or H351	T with R45 or R49 or Xn with R40
Mutagenic	Mut 1A/B/2 with H340, H341	T with R46 or Xn with R68
Toxic for reproduction	Repr 1A/1B/2 with H360, H361, H362	T with R60 or R61 or Xn with R62 and/or R63
Airway sensitising	H334	Xn with R42
Acute toxicity	Acute Tox 1-4: H300, H301, H302, H310, H311, H330, H331,H370, H372	Tx (T+ in Norway) with R26, R27, R28 and/or R39 T with R23, R24, R25, R39 and/or R48
Specific target organ toxicity with repeated exposure	STOT RE 1 H372 STOT RE 2 H373	Xn with R48, R68 R33 (may accumulate in the body)

Exemptions:

- Preservatives that are used to preserve the product and that are not assigned any of the hazard phrases H373, H334, H370, H341 (R33, R42, R39, R68) or combinations of these (further requirements concerning preservatives are stated in O5).
- Formaldehyde as an impurity in newly produced polymers, see separate requirement O6.
- Sealants may contain methanol to a maximum level of 0.10%.

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

✉ Safety data sheet for all constituent substances in line with Annex II to REACH (Regulation (EC) No 1907/2006).

O4 Environmentally harmful substances

Constituent chemical substances classified as environmentally harmful with risk phrases H410, H411, H412 (N R50/53, N R51/53 and R52/53), according to CLP Regulation (No) 1272/2008 or the EU's Dangerous Substances Directive 67/548/EEC as amended, are limited in the product according to the following formula (calculation model taken from current classification rules, except that here the limit value is tougher):

M*100*H410 + 10*H411 + H412 ≤ 11%

Or

M*100*(R50/53) + 10*(R51/53) + (R52/53) ≤ 11%

Where M is the multiplying factor for H410 linked to the substance's LC50 or EC50 value, in accordance with Table 3 below.

Table 3 Concentration limits and multiplying factors for substances classified as H410 (and similarly for R50/53)

L(E)C50 value	Concentration limit	Multiplying factor
0.1 < L(E)C50 ≤ 1	0.25%	1
0.01 < L(E)C50 ≤ 0.1	0.025%	10
0.001 < L(E)C50 ≤ 0.01	0.0025%	100
0.0001 < L(E)C50 ≤ 0.001	0.00025%	1000

0.00001 < L(E)C50 ≤ 0.0001	0.000025%	10000
(the table then continues in factor 10 intervals)	…	…

If information about a substance's harmfulness to the environment (in the form of data concerning toxicity and degradability or toxicity and bioaccumulation) is not available, the substance is treated as a worst case, i.e. as environmentally harmful – H410.

☒ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

☒ Safety data sheet for all constituent substances in line with Annex II to REACH (Regulation (EC) No 1907/2006).

☒ Calculation clearly showing that the requirement is fulfilled.

O5 Preservatives

- No preservatives added to the product or its ingredients may be bioaccumulative.

The bioaccumulative properties of a substance can be tested on fish in line with OECD test method 305 A-E. If the bioconcentration factor (BCF) is ≥ 500, the substance is considered to be bioaccumulative. If there is no BCF for a substance, that substance is considered to be bioaccumulative if logKow ≥ 4 under the OECD's guidelines 107 or 117 or equivalent.

Note that if there is a measured BCF value and a logKow value, it is always the highest measured BCF that is used, rather than the logKow value.

-
- The total levels of isothiazolinone compounds, iodopropynyl butylcarbamate (IPBC) and 3:1 blends of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one must not exceed the limit values in Table 4 below:

Table 4. Restrictions on preservatives

	The total level of isothiazolinone compounds must not exceed:	**The total level of iodopropynyl butylcarbamate (IPBC) must not exceed:**	**The total level of IPBC + iso-thiazolinone must not exceed**	**The total level of blended CMIT+MIT (3:1)* must not exceed:**
Adhesives	100 ppm (0.01% by weight, 100 mg/kg)	-	-	15 ppm (0.0015% by weight, 15 mg/kg).
Sealants	100 ppm (0.01% by weight, 100 mg/kg)	-	-	15 ppm (0.0015% by weight, 15 mg/kg).
Fillers	500 ppm (0.05% by weight, 500 mg/kg).	-	-	15 ppm (0.0015% by weight, 15 mg/kg).
Outdoor paints and varnishes	1500 ppm (0.15% by weight, 1500 mg/kg). If the use of isothiazolinone compounds results in a classification of H317 or "Contains (name of sensitising substance), may	4500 ppm (0.45% by weight, 4500 mg/kg). If the use of iodopropynyl butylcarbamate (IPBC) results in a classification of Xi R43 or the label "Contains iodopropynyl butylcarbamate	5000 ppm (0.50% by weight, 5000 mg/kg).	15 ppm (0.0015% by weight, 15 mg/kg).

	cause an allergic reaction", the requirements concerning the weathering test for growth in O23 must be fulfilled.	(IPBC), may cause an allergic reaction", the requirements concerning the weathering test for growth in O23 must be fulfilled.		
Industrial paints	500 ppm (0.05% by weight, 500 mg/kg).	-	-	15 ppm (0.0015% by weight, 15 mg/kg).

**5-chloro-2-methyl-2H-isothiazol-3-one (CAS no. 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS no. 2682-20-4) in a 3:1 blend.*

The term preservative refers to both preservatives for tinned products and preservatives for the surface finish.

☒ Documentation that none of the added preservatives are bioaccumulative, cf. OECD test method no. 305 A-E or 107, 117.

☒ Duly completed declaration, see Appendix 2, from the manufacturer of each raw material.

☒ Calculation clearly showing that the requirement concerning preservatives is fulfilled.

O6 Formaldehyde

Products must not contain actively added formaldehyde (CAS no. 50-00-0) or formaldehyde-releasing substances.

The level of free formaldehyde (from formaldehyde not intentionally added or from formaldehyde-releasing substances) in the end product must not exceed 10 ppm (0.001% by weight, 10 mg/kg)*.

In fillers and paint products, formaldehyde is permitted as an impurity in newly produced polymers at a concentration of no more than 200 ppm (0.02% by weight, 200 mg/kg)**, on condition that the content of free formaldehyde in the end product does not exceed 10 ppm (0.001% by weight, 10 mg/kg)*.

In adhesives and sealants, formaldehyde is permitted as an impurity in newly produced polymers at a concentration of no more than 250 ppm (0.025% by weight, 250 mg/kg)**, on condition that the content of free formaldehyde in the end product does not exceed 10 ppm (0.001% by weight, 10 mg/kg)*.

**Measured with the Merckoquant mehtode (appendix 2 to RAL-UZ 102) or other equivalent test method.*

***Measured with the VdL-RL 03-methode "In-can concentration of formaldehyde determined by the acetyl-acetone method" or the Merckoquant methode (appendix 2 to RAL-UZ 102) or other equivalent test method.*

☒ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

☒ Statement on the levels in the product (if any) as measured using the Merckoquant method (see appendix 2 to RAL-UZ 102), the VdL-RL 03 method ("Concentration of free formaldehyde determined using the acetyl-acetone method"), or other equivalent test method.

O7 Residual monomers in polymers

The total level of residual monomers in polymers may be no more than 100 ppm, where they are very toxic, toxic or harmful to health and classified as Acute Tox. Cat. 1-4.

The quantity of residual monomers is to be stated for newly produced polymers.

The classifications is in accordance with the prevailing CLP Regulation EC (No) 1272/2008 or the Dangerous Preparations Directive 1999/45/EC (as amended).

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

O8 Heavy metals

The following heavy metals or heavy metal compounds must not be present in the product or in its constituent chemical substances:

- Cadmium
- Lead
- Chromium VI
- Mercury
- Arsenic
- Barium (with the exception of barium sulphate, and other equally insoluble barium compounds)
- Selenium
- Antimony*

** An exception is made for antimony contained in a TiO_2 rutile lattice, on the following terms: test results must prove that the molecular structure is inert and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org).*

✉ Duly completed declaration, see Appendix 2, from the manufacturer of each raw material.

✉ For pigment that contains antimony integrated into a TiO2 rutile lattice, documentation must be submitted to show that the molecular structure is inert and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org).

O9 Titanium dioxide

If the product contains more than 3.0% by weight titanium dioxide, emissions from production of the titanium dioxide must not exceed the value stated below under the sulphate process and the chloride process.

Sulphate process:

SOx expressed as SO_2: 7.0 kg/tonne TiO_2

Sulphate waste: 500 kg/tonne TiO_2

Chloride process:

When using natural ore: 103 kg chloride waste/tonne TiO_2

When using synthetic ore: 179 kg chloride waste/tonne TiO_2

When using titanium ore: 329 kg chloride waste/tonne TiO_2

If more than one type of ore is used, the values apply proportionately to the ore types used.

✉ Declaration, see Appendices 1 and 2, from the manufacturer of the product and the supplier/manufacturer of each raw material.

✉ If the product contains titanium dioxide, a description and calculation from the titanium dioxide producer is to be submitted, clearly showing that the requirement is fulfilled.

O10 Constituent powdered substances

Substances in powder form must be added in a closed system, in a suspension or by means of a method that promotes a "low-dust" working environment e.g. using protective equipment which heavily reduce the dust or completely remove the dust from the raw materials.

✉ Description of how powdered substances are handled during the production process.

O11 Nanoparticles

Nanoparticles (from nanomaterials*) are not permitted in the product.

The following are exempted from the requirement:

- Pigments**
- Synthetic amorphous silica***

** The definition of nanomaterials follows the European Commission's definition from 18 October 2011 (2011/696/EU): "A nanomaterial is a natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions is in the size range 1-100 nm."*

*** Nano-titanium dioxide (nano-TiO_2) is not considered a pigment.*

**** This applies to traditional synthetic amorphous silica in bulk form. Surface-treated silica is not permitted.*

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

O12 Other substances excluded from use

The product must not contain:

- Substances on the Candidate List*.
- Persistent, bioaccumulative and toxic (PBT) organic substances**.
- Very persistent and very bioaccumulative (vPvB) organic substances**.
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. See the following link: http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htmOrganotin compounds
- Phthalates
- APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation).
- Halogenated organic substances with the exemptions of preservatives that fulfil R4 and paint pigments that meet the EU's requirements concerning colourants in food packaging under Resolution AP (89).
- Isocyanates– water-based polyisocyanates with a chain length of more than 10 are exempted, where the concentration of isocyanates with a chain length of less than 10 as an impurity is documented.
- Fragrances

** The Candidate List can be found on the ECHA website at: http://echa.europa.eu/candidate-list-table*

PBT and vPvB substances are defined in Annex XIII of REACH (Regulation (EC) No 1907/2006). Substances that meet, or substances that form substances that meet, the PBT or vPvB criteria are listed at http://esis.jrc.ec.europa.eu/index.php?PGM=pbt. Substances that are "deferred" or substances "under evaluation" are not considered to have PBT or vPvB properties.

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

✉ If halogenated organic pigments are used, a declaration is required from the pigment supplier confirming that the pigment meets the EU's requirement concerning colourants in food packaging under Resolution AP (89).

2 Product specific requirements

2.1 Adhesives

O13 Volatile organic compounds (VOC) and volatile aromatic hydrocarbons (VAH)

Volatile aromatic hydrocarbons (VAH) must not be actively added to the product, but may occur as residues or impurities to a maximum of 100 ppm (0.01% by weight, 100 mg/kg).

Adhesives that are intended for frostproof use during the winter may contain maximum 6.0% by weight volatile organic compounds.

Other adhesives, with the exception of wallpaper paste, may contain a maximum of 1.0% by weight volatile organic compounds.

Wallpaper paste must not contain any volatile organic compounds.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

Volatile organic compounds (VOC) are defined here as any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa. VOC content is measured according to the methods in the VOC Directive (2004/42/EC).

Volatile aromatic hydrocarbons are volatile organic compounds where one or more benzene rings are contained within the molecule.

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

✉ Specification of the level of volatile aromatic hydrocarbons and calculation of VOC in the product.

✉ Test report confirming that the level of volatile organic compounds (VOC) in the adhesive does not exceed the limit value in the requirement above, for each type of adhesive.

O14 Emission of total volatile compounds (TVOC)

The total level of volatile organic compounds in adhesives must not exceed the following (depending on which test is used):

- M1: 0.2 mg/m^{2}h converted into toluene equivalents after 4 weeks
- Or
- EMICODE EC1: 100 µg/m^3 after 28 days
- Or
- Blaue Engel RAL UZ 113: 100 µg/m^3 after 28 days

Note: If the product is intended for both outdoor and indoor use, it must meet the requirements concerning indoor adhesives.

Adhesives for indoor use sold in packs of less than 125 ml are exempted from this requirement.

✉ Specification of pack size.

✉ Test report in line with ISO EN 16000, parts 1, 3, 6, 9, 10, 11 for products sold in packs greater than 125 ml. The test laboratory must be accredited for the test method in line with standard EN ISO/IEC 17025.

O15 Quality requirements

Adhesives are to be tested in accordance with the standards stated in the table below.

Table 5 Quality tests for adhesives

Types	Test method
Adhesives for wall and floor coverings	EN 1372, EN 1373, EN 1902 or equivalent methods. At least one comparable reference product is to be tested.
Ceramic tile adhesive	EN 1324 or equivalent methods – the adhesive must meet the minimum requirements in standard EN 12004.
Wallpaper paste	Comparative test (see Appendix 5) that clearly shows the quality of the adhesive.
Wood adhesive	EN 205:2003 or equivalent methods. At least one comparable reference product is to be tested.
Other adhesives	Methods that apply for these products or comparative test (see Appendix 5) that clearly shows the quality of the adhesive.

✉ Test report from a laboratory in line with Appendix 6 or comparative test in line with Appendix 5, which clearly shows that the requirement is fulfilled.

2.2 Sealant

O16 Volatile organic compounds (VOC) and volatile aromatic hydrocarbons (VAH)

Volatile aromatic hydrocarbons (VAH) must not be actively added to the product, but are permitted as residues or impurities to a maximum of 100 ppm (0.01% by weight, 100 mg/kg).

Sealants are permitted to contain no more than 3.0% by weight volatile organic compounds.

Note that if volatile organic compounds form during the use of the sealant, these must meet all applicable obligatory requirements.

Volatile organic compounds (VOC) are defined here as any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa. VOC content is measured according to the methods in the VOC Directive (2004/42/EC).

Volatile aromatic hydrocarbons are volatile organic compounds where one or more benzene rings are contained within the molecule.

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

✉ Specification of the level of volatile aromatic hydrocarbons and calculation of VOC in the product.

✉ Test report confirming that the level of volatile organic compounds (VOC) in the sealant does not exceed 3.0% by weight.

O17 Emission of total volatile compounds (TVOC)

The total level of volatile organic compounds in sealants must not exceed the following (depending on which test is used):

- EMICODE EC1: 100 μg/m³ after 28 days

Or

- Blaue Engel RAL-UZ 123: 300 μg/m³ after 28 days

If the product is intended for both outdoor and indoor use, it must meet the requirements concerning sealants for indoor use.

Sealants for indoor use sold in packs of less than 125 ml are exempted from this requirement.

✉ Specification of pack size.

✉ Test report in line with ISO EN 16000, parts 1, 3, 6, 9, 10, 11 for products sold in packs greater than 125 ml. The test laboratory must be accredited for the test method in line with standard EN ISO/IEC 17025.

O18 Quality requirements

The sealant must, where appropriate, be tested in accordance with ISO 11600. Other sealants are to be subject to a comparative test (see Appendix 5) that clearly shows the quality of the sealant.

✉ Test report from a laboratory in line with Appendix 6 or comparative test in line with Appendix 5, which clearly shows that the requirement is fulfilled.

2.3 Filler

O19 Volatile organic compounds (VOC) and volatile aromatic hydrocarbons (VAH)

Volatile aromatic hydrocarbons (VAH) must not be actively added to the product, but are permitted as residues or impurities to a maximum of 100 ppm (0.01% by weight, 100 mg/kg).

Fillers are permitted to contain no more than 3.0% by weight volatile organic compounds in ready-mixed filler.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

Volatile organic compounds (VOC) are defined here as any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa. VOC content is measured according to the methods in the VOC Directive (2004/42/EC).

Volatile aromatic hydrocarbons are volatile organic compounds where one or more benzene rings are contained within the molecule.

✉ Specification of the level of volatile aromatic hydrocarbons and calculation of VOC in the product.

✉ Test report confirming that the level of volatile organic compounds (VOC) in the filler does not exceed 3.0% by weight.

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

O20 Emission of total volatile compounds (TVOC)

The total level of volatile organic compounds in fillers must not exceed the following (depending on which test is used):

- M1: 0.2 mg/m²h converted into toluene equivalents after 4 weeks

Or

- EMICODE EC1: 100 μg/m³ after 28 days

If the product is intended for both outdoor and indoor use, it must meet the requirements concerning fillers for indoor use.

Fillers for indoor use sold in packs of less than 125 ml are exempted from this requirement.

☒ Specification of pack size.

☒ Test report in line with ISO EN 16000, parts 1, 3, 6, 9, 10, 11 for products sold in packs greater than 125 ml. The test laboratory must be accredited for the test method in line with standard EN ISO/IEC 17025.

O21 Quality requirements

The manufacturer must describe how the filler is tested in order to ensure good, consistent quality, particularly in terms of viscosity, adhesion, gap-filling properties, shrinkage, minimal sinking and durability.

Test of filler for plasterboard conducted in accordance with the standard EN 13963. Test of other filler in accordance with EN 15824 or using a comparative test (see Appendix 5) that clearly shows the quality of the filler.

☒ Test report from a laboratory in line with Appendix 6 or comparative test in line with Appendix 5, which clearly shows that the requirement is fulfilled.

2.4 Outdoor paints and varnishes

O22 Volatile organic compounds (VOC) and volatile aromatic hydrocarbons (VAH)

Volatile aromatic hydrocarbons (VAH) must not be actively added to the product, but are permitted as residues or impurities to a maximum of 100 ppm (0.01% by weight, 100 mg/kg).

Outdoor paints and varnishes may contain the amount of volatile organic compounds stated in Table 6.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

Volatile organic compounds (VOC) are defined here as any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa. VOC content is measured according to the methods in the VOC Directive (2004/42/EC).

Volatile aromatic hydrocarbons are volatile organic compounds where one or more benzene rings are contained within the molecule.

Table 6 VOC limits for outdoor paints and varnishes

Product classification, cf. 2004/42/EC	Maximum permissible quantity of VOC stated in g/l (incl. water)
c. Exterior walls of mineral substrate	25
d. Exterior trim and cladding paints for wood and metal including undercoats	75
e. Exterior trim varnishes and woodstains, including opaque woodstains	65
f. Exterior minimal build woodstains	50
g. Primers	10
h. Binding primers	10
i. One-pack performance coatings	65

j. Two-pack reactive performance coatings for specific end use such as floors	65

Powder paints are exempted from this requirement.

✉ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

✉ Specification of the level of volatile aromatic hydrocarbons and calculation of VOC in the product.

✉ Test report confirming that the level of volatile organic compounds (VOC) in the outdoor paint or varnish does not exceed the limit value in the requirement above, for each type of outdoor paint or varnish.

O23 Quality requirement

1. Weathering test: Products shall be exposed to artificial weathering in special apparatus including UV fluorescent lamps and condensation or water spray according to the respective tests mentioned.

- Masonry paints shall be exposed to test conditions for 1000 hours (6 weeks) (UVA 4t/60ºC + humidity 4t/50ºC) according to ISO 11507: 2007.
- Metal finishes shall be exposed to test conditions for 500 hours (6 weeks) (UVA 4t/60ºC + humidity 4t/50ºC) according to ISO 11507: 2007.
- Wood paints, wood stains and wood varnishes shall be exposed to test conditions for 2000 hours (12 weeks) according to EN 927-6.

2. The following results of the weathering test are also to be reported:

- Flaking (according to ISO 4628-5:2003). Product is to have a flake density of 2 or less, and a flake size of 2 or less.
- Cracking (according to ISO 4628-4:2003). The product is to have a crack quantity of 2 or less and a crack size of 3 or less.
- Blistering (according to ISO 4628-2:2003). The product is to have a blister quantity of 3 or less and a blister size of 3 or less.
- The colour change (according to ISO 7724-2) shall not exceed $\Delta E^*=4$ with respect to the initial value.
- Decrease in gloss (according to EN ISO 2813) shall not be greater than 30% of initial value – matte paints and varnishes with an initial gloss value less than 60% are exempted from the requirement.
- Chalking (according to EN ISO 4628-6:2007) for masonry paints and metal finishes. The product shall achieve at least 1.5 or more, i.e. 0.5 or 1.0. In the standard there are pictorial reference standards.
- General appearance (according to EN ISO 4628-1:2003).

If an entire paint system is ecolabelled, all bases and colours must fulfil the requirements. This can be documented by testing at least three representative products – at least one white, one intermediate colour and one dark colour – to show fulfilment of the quality requirement.

✉ Test report from a laboratory in line with Appendix 6 which clearly shows that the requirement is fulfilled.

3. Water vapour permeability, Class II: If masonry and concrete paints are marketed as water vapour permeable or similar claims are made, the paints are to be classified as Class II, i.e. with average water vapour permeability or better according to EN ISO

7783-2. Due to large numbers of possible tinting colours, this criterion will be restricted to testing of the base paint. This method is not applicable for transparent primers.

✉ Test report from a laboratory in line with Appendix 6 which clearly shows that the requirement is fulfilled.

4. Liquid water permeability, Class III: If masonry and concrete paints are marketed as water repellent/hydrophobic or similar claims are made, the paints are to be classified as Class III, i.e. with low liquid water permeability according to DIN EN 1062-3: 1999. Due to large numbers of possible tinting colours, this criterion will be restricted to testing of the base paint.

✉ Test report from a laboratory in line with Appendix 6 which clearly shows that the requirement is fulfilled.

5. Fungal growth: If the product is classified with Xi R43 or "Contains (name of the sensitising substance), may cause an allergic reaction" because of the use of isothiazolinones or iodopropynyl butylcarbamate, IPBC, the product must pass the relevant fungal growth test, see below. If the product is marketed as "resistant to fungal growth" or similar, a test must be conducted that documents this.

Products intended for mineral substrates must achieve a score of 2 (under 10% fungal growth) or better, as established in BS 3900:G6 or equivalent.

Products intended for wood are to be tested according to EN-927-3 or equivalent. No detectable defects (class 0) and no defects visible under 10 times magnification (class 0) according to EN ISO 4628-1.

If an equivalent method is used, for example PREN 15457, the applicant must document that the test is equivalent to the tests specified in the criteria document.

Due to large numbers of possible tinting colours, this criterion will be restricted to testing of the base paint.

✉ Test report from a laboratory in line with Appendix 6 which clearly shows that the requirement is fulfilled.

6. Powder paints: Powder paints for outdoor use must meet the quality requirements in Qualicoat or in the GSB standard GSB AL 631 (Aluminium) or GSB ST 663 (Steel and Galvanised steel).

✉ Certificate from Qualicoat or GSB showing that the product meets the requirements applicable to the product.

2.5 Industrial paints and varnishes (indoors)

O24 Volatile organic compounds (VOC) and volatile aromatic hydrocarbons (VAH)

Volatile aromatic hydrocarbons (VAH) must not be actively added to the product, but are permitted as residues or impurities to a maximum of 100 ppm (0.01% by weight, 100 mg/kg).

Industrial paints and varnishes may contain the amount of volatile organic compounds stated in the table.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

Volatile organic compounds (VOC) are defined here as any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa. VOC content is measured according to the methods in the VOC Directive (2004/42/EC).

Volatile aromatic hydrocarbons are volatile organic compounds where one or more benzene rings are contained within the molecule.

Table 7 VOC limits for industrial paints and varnishes

Product classification, cf. 2004/42/EC	**Maximum permitted quantity of VOC in ecolabelled industrial paints and varnishes, stated in g/l**
d. Interior trim and cladding paints for wood and metal including undercoats	N/A
e. Interior trim varnishes and woodstains, including opaque woodstains	40
f. Interior and exterior minimal build woodstains	40
g. Primers	40
h. Binding primers	10
i. One-pack performance coatings	10
j. Two-pack reactive performance coatings for specific end use such as floors	40

Industrial powder paints and varnishes are exempted from this requirement.

☒ Specification of the level of volatile aromatic hydrocarbons and calculation of VOC in the product.

☒ Test report confirming that the level of volatile organic compounds (VOC) in the industrial paint or varnish does not exceed the limit value in the requirement above.

☒ Declaration in line with Appendices 1 and 2 from the manufacturer of the product and the supplier/manufacturer of each raw material.

2.5.1 Quality requirements for industrial paints and varnishes

The quality of industrial paints and varnishes is to be quality tested according the test methods relevant for the paint/varnish's usage. The quality requirements are diveded as follows:

- Furniture - O25 (möbelfakta)
- Panels and such materials - O26 (scratch resistance)
- Paints and varnishes for painting/coating floors - O27 and O28 (Abrasion/wear and water reistance)

O25 Quality requirements for industrial paints and varnishes for furniture

Industrial paints and varnishes for furniture must fulfil the requirements as set out in the Tables 8 and 9 below.

Table 8 Requirement levels for varnished surfaces in different furniture groups.

Seating	Seat and armrest	Requirement level 2
Storage units	External horizontal surfaces (up to 1.25 m),	Requirement

	shelves and bases	level 3
Tables	Private use and normal public use	Requirement level 4
	Intensive public use (restaurant/café)	Requirement level 5
Kitchen	Internal surfaces, including drawer bottoms, excluding shelves and bases	Requirement level 1
	External horizontal surfaces, shelves and bases	Requirement level 3
	Worktops (table tops)	Requirement level 6

Table 9 Test methods and requirement levels for furniture tests

Requirement category			**Requirement levels**					
Test:		**References:**	**1**	**2**	**3**	**4**	**5**	**6**
Water	1)	EN 12720	6h	16h	16h	24h	24h	24h
Grease	1)	EN 12720	24h	24h	24h	24h	24h	24h
Grease + scratches	1)	SS 83 91 22	-	-	-	24h+3N	24h+3N	24h+3N
Scratches	2)	SS 83 91 17	-	3N	3N	5N	5N	5N
Alcohol	1)	EN 12720	-	-	-	1h	1h	1h
Coffee	1)	EN 12720	-	1h	1h	1h	1h	1h
Heat, dryness	1)	EN 12722	-	-	-	70˚C	70˚C	-
Heat, dryness	1)	EN 12722	-	-	-	-	-	180˚C
Heat, moisture	1)	EN 12721	-	-	-	-	-	85˚C
Heat on edge	1)	NS 8061	-	-	-	-	-	85˚C
Water on edge	1)	SS 83 91 20 NS8062 DS2175	-	-	1h	-	-	-
Sweat, acid and alkaline	1)	ISO 105E04	-	1h	-	-	-	-

1) = A result of 4 is a pass score in the assessment. Assessment after 24 h.

2) = Maximum scratch width 0.5 mm. Penetration of the varnish layer is not acceptable.

** = Applies to storage units – external horizontal surfaces ≤ 1,250 mm above floor-level.*

*** = Applies to armrests.*

**** = Applies to doors and drawer fronts.*

✉ Information on which function/end use the paints or varnishes have been tested for and which standard has been used, the test institute and a full test report clearly showing that the requirement is fulfilled.

O26 Quality requirements for industrial paints and varnishes for panels, floors and similar

Scratch resistance can be tested using the following methods or equivalent:

- Scratch resistance ASTM D2794 (http://www.astm.org/Standards/D2794.htm)
- "Sheen Automatic Scratch Tester" according to ISO 1518 (1992)

✉ Complete test report showing that the paint/varnish has satisfactory scratch resistance for its intended purpose.

O27 Abrasion/wear for surfaces subject to heavy wear, e.g. floors and sheeting

Floor paints, floor coatings and other products subject to an equivalent level of wear must have an abrasion resistance not exceeding 70 mg weight loss after 1000 test cycles with a 1000 g load and a CS10 wheel according to EN ISO 7784-2:2006.

✉ The applicant must submit a test report showing that this requirement has been fulfilled in accordance with EN ISO 77842:2006.

O28 Water resistance (floors)

Varnishes, floor coatings and floor paints shall have a resistance to water, as determined by ISO 2812-3, such that after 24 hours' exposure and 16 hours' recovery no change of gloss or of colour occurs.

✉ Assessment and verification: The applicant shall provide a test report using the method ISO 2812-3 (Paints and varnishes – determination of resistance to liquids – Part 3: Method using an absorbent medium).

3 Requirements concerning packaging, labelling, consumer information and recycling

O29 Packaging

- Packaging must be resealable, unless documentation can be provided that the entire product will always be used in one go.
- The type of plastic material must be documented by the manufacturer. Labels and product packaging must not contain halogenated plastic.
- Packaging and any surface coating must not contain halogens.
- Metal packaging must not be used for packs of less than 1 litre, unless this is justified by special health and environmental arguments.

✉ Packaging sample showing that the packaging can be resealed.

✉ Description of the packaging type and size.

✉ Descriptions of whether the entire product is always used in one go.

✉ Declaration from the packaging manufacturer that no halogenated plastics have been used or product data sheets clearly showing that the requirement is met by all parts of the packaging, including lids, caps, etc.

✉ Declaration from the packaging manufacturer that the packaging has not been surface coated, or that the surface coating does not contain halogens.

✉ Declaration from the label producer that no halogenated plastics have been used.

O30 Label/product packaging

The label/product packaging must carry the Nordic Ecolabel logo, licence number and product group designation.

✉ Label/product packaging – a PDF file is acceptable for this.

O31 Consumer information

The following information must be placed on the packaging or enclosed with each individual product:

- The purpose, substrate and other conditions of application for which the product is intended. This shall include advice on preparation and so on, e.g. correct preparation of the substrate, outdoor use (if relevant) or temperature.
- Estimate of "normal" coverage (e.g. l/m², g/m or equivalent).
- Recommended preventive safety measures for users, such as safety equipment and ventilation (particularly when working in enclosed spaces or similar, or when using industrial paints).
- Recommendations on cleaning used tools and how waste products from cleaning can best be disposed of (to limit water pollution). These recommendations are to be adapted to the product types and areas of application. Pictograms may also be used where appropriate.
- Sealants: A recommendation that the sealant should be finished using a smoother/sponge/cloth or similar is to be included in the product description, and it is not to be recommended that this is done with a thumb/finger.
- Recommendations on how the product is to be stored after opening, including safety instructions where relevant.
- Recommendations on the disposal of residual product and packaging.

✉ Label, product sheet or equivalent and description of how the information accompanies each product.

O32 Take-back system

Relevant national regulations, legislation and agreements within the sector regarding take-back systems for products and packaging shall be complied with in all the Nordic countries where the Nordic Ecolabelled products are marketed. Relevant take-back systems are PYR (Fi), Grønt punkt (No) and FTi AB (Sw).

✉ Declaration from the applicant regarding affiliation to existing recycling/processing agreements.

O33 Sorting and handling of waste

The manufacturer must have a plan for the sorting and handling of waste.

The quantity of hazardous waste is to be reported.

✉ Report on how waste is handled and sorted, including a sorting plan.

✉ Report on the quality of hazardous production waste.

4 Quality, management, regulatory and marketing requirements

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

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

O34 Laws and regulations

The licensee shall ensure compliance with all applicable local laws and provisions at all production facilities for the Nordic Ecolabelled product, e.g. with regard to safety, working environment, environmental legislation and site specific requirements/concessions.

✉ Declaration from the licensee (signed application form) that the requirement is fulfilled, plus a report to the regulatory authority.

O35 Licence administrators

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

✉ Organisational chart showing who is responsible for the above.

O36 Documentation

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

🔑 On-site inspection

O37 Product quality

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

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

O38 Planned changes

Written notice of planned product and marketing changes that affect the Nordic Ecolabelling requirements must be given to Nordic Ecolabelling.

✉ Procedures detailing how planned product and marketing changes are dealt with.

O39 Unforeseen non-conformities

Unforeseen non-conformities that affect Nordic Ecolabelling requirements must be reported to Nordic Ecolabelling in writing and logged.

✉ Procedures detailing how unforeseen non-conformities are handled.

O40 Traceability

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

✉ Description of/procedures for fulfilment of the requirement.

O41 Marketing

Marketing of Nordic Ecolabelled chemical building products must comply with the "Regulations for the Nordic Ecolabelling of Products" dated 22 June 2011 or later versions.

✉ Duly completed Appendix 4.

Marketing

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

The label must be positioned so that there is no doubt as to what the label refers and so that it is clear that the chemcial building product is ecolabelled.

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

Design of the Nordic Ecolabel

Design of the Nordic Ecolabel:



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

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

Follow-up inspections

Nordic Ecolabelling may decide to check whether the chemical building product fulfils Nordic Ecolabel requirements during the licence period. This may involve a site visit, random sampling or similar test.

The licence may be revoked if it is evident that chemical building product does not meet the requirements.

Random samples may also be taken in-store and analysed by an independent laboratory. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

How long is a licence valid?

Nordic Ecolabelling adopted the criteria for chemical building products on DAY MONTH YEAR. The criteria are valid until DAY MONTH YEAR.

The ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be extended or adjusted, in which case the licence is automatically extended and the licensee informed.

Revised criteria shall be published at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

New criteria

- Review the opportunity to expand the product group to include "Industrial adhesives".

Terms and definitions

Term **Explanation or definition**

Term	**Explanation or definition**
CLP	Classification, Labelling and Packaging of substances and mixtures – EU Regulation
CMIT/MIT	CMIT/MIT is a blend of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one in a ratio of 3:1. The blend is used as a preservative.
IPBC	Iodopropynyl butylcarbamate, used as a preservative in products such as paints.
Isothiazolinones	Used as a preservative in products such as paints and sealants. This group includes MIT and BIT.
SVHC	Substances of Very High Concern
TVOC	Total VOC
VAH	Volatile Aromatic Hydrocarbons, which are a subset of VOC.
VOC	Volatile Organic Compounds

Appendix 1 Declaration from the manufacturer of the chemical building product

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of chemical building products. To complete the following declaration, you will need declarations for all raw materials (Appendix 2 or equivalent declaration).

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

Product name: _____

Product's function/product group (e.g. adhesive, paint): _____

The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers) but does not include impurities from primary production. Impurity refers to residues from primary production which may be found in the finished product at concentrations below 100 ppm (0.0100% by weight, 100 mg/kg), but not substances that have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity.

Impurities of over 1.0% concentration in the primary product are, however, regarded as constituent substances. Substances known to be degradation products of the constituent substances are also themselves considered to be constituent substances.

	Yes	No
O3: Does the product contain substances classified with any of the hazard phrases below?		
H350 – Carcinogenic, hazard category 1A and 1B H351 – Carcinogenic, hazard category 2		
H340 – May cause genetic defects, hazard category 1A and 1B H341 – May cause genetic defects, hazard category 2		
H360 – Toxic for reproduction, hazard category 1A and 1B H361 – Toxic for reproduction, hazard category 2 H362 – Toxic for reproduction – effects on or through breastfeeding (supplementary category)		
H334 – Airway sensitising category 1/1A/B		
Acute Tox 1-4: H300, H301, H302, H310, H311, H330, H331, H370, H372		
STOT RE 1 H372 STOT RE 1 H373		
O4: Does the product contain any substances classified as harmful to the environment with the following risk phrases or combinations of them?		
H410 (R50/53) – Aquatic Chronic 1 H411 (R51/53) – Aquatic Chronic 2 H412 (R52/53) – Aquatic Chronic 3		

O5: Does the product contain any preservatives? **If yes, state log Kow/BCF or E-number:_____**		
Does the product contain formaldehyde, isothiazolinone compounds and/or IPBC?		
O8: Does the product contain any heavy metals (cadmium, lead, chromium VI, mercury, arsenic, barium, selenium, antimony)? **Barium sulphate and other insoluble barium compounds are exempted**		
O9: Does the product contain titanium dioxide?		
O11: Does the product contain any nanomaterials according to the EU definition, 2011/696/EU, (including nanotitanium dioxide)? Definition: A nanomaterial is a natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions is in the size range 1-100 nm.		
O12: Does the product contains any of the following substances?		
Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. The list can be read in its entirety at http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm		
Tin-organic compounds		
Phthalates		
APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation).		
Halogenated organic substances – preservatives that fulfil R4 and paint pigments that meet the EU's requirements concerning colourants in food packaging under Resolution AP (89) are exempted.		
Isocyanates (water-based polyisocyanates with a chain length of more than 10 are exempted, where the concentration of isocyanates with a chain length of less than 10 as an impurity is documented).		
Fragrances		
PBT and vPvB substances as defined in Annex XIII of REACH (Regulation (EC) No 1907/2006). Substances that meet, or substances that form substances that meet, the PBT or vPvB criteria are listed at http://esis.jrc.ec.europa.eu/index.php?PGM=pbt. Substances that are "deferred" or substances "under evaluation" are not considered to have PBT or vPvB properties.		
O13, O16, O19, O22, O24 Does the product contain **Volatile organic compounds (VOC)** **Volatile aromatic hydrocarbons (VAH)**		

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg/kg). For nanoparticles, also state

what type of particles, and for VOC/VAH also state the boiling point:
_____

_____

_____

_____

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

Place and date:	Company name/stamp:
Responsible person:	Signature of responsible person:

Appendix 2 Declaration from the manufacturer of the rawmaterial/ingredient

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of chemical building products.

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

Rawmaterial/Ingredient name:_____

Rawmaterial's/ingredient's function: _____

The term constituent substance refers to all substances in the product, including additives in the ingredients (such as preservatives and stabilisers) but does not include impurities from primary production. Impurity refers to residues from primary production which may be found in the finished product at concentrations below 100 ppm (0.0100% by weight, 100 mg/kg), but not substances that have been added to a raw material or the product actively and for a particular purpose, irrespective of quantity.

Impurities of over 1.0% concentration in the primary product are, however, regarded as constituent substances. Substances known to be degradation products of the constituent substances are also themselves considered to be constituent substances.

	Yes	No
O3: Does the raw material contain substances classified with any of the hazard phrases below?		
H350 – Carcinogenic, hazard category 1A and 1B H351 – Carcinogenic, hazard category 2		
H340 – May cause genetic defects, hazard category 1A and 1B H341 – May cause genetic defects, hazard category 2		
H360 – Toxic for reproduction, hazard category 1A and 1B H361 – Toxic for reproduction, hazard category 2 H362 – Toxic for reproduction – effects on or through breastfeeding (supplementary category)		
H334 – Airway sensitising category 1/1A/B		
Acute Tox 1-4: H300, H301, H302, H310, H311, H330, H331, H370, H372		
STOT RE 1 H372 STOT RE 1 H373		
O4: Does the rawmaterial contain any substances classified as harmful to the environment with the following risk phrases or combinations of them?		
H410 (R50/53) – Aquatic Chronic 1 H411 (R51/53) – Aquatic Chronic 2 H412 (R52/53) – Aquatic Chronic 3		
O5: Does the rawmaterial contain any preservatives? **If yes, state log Kow/BCF or E-number:_____**		

O5-O6: Does the rawmaterial contain formaldehyde, isothiazolinone compounds and/or IPBC?		
O7: Does the rawmaterialcontain rest monomer?		
O8: Does the rawmaterial contain any heavy metals (cadmium, lead, chromium VI, mercury, arsenic, barium, selenium, antimony)? **Barium sulphate and other insoluble barium compounds are exempted**		
O9: Does the rawmaterial contain titanium dioxide?		
O11: Does the rawmaterial contain any nanomaterials according to the EU definition, 2011/696/EU, (including nanotitanium dioxide)? Definition: A nanomaterial is a natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions is in the size range 1-100 nm.		
O12: Does the rawmaterial contain any of the following substances?		
Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. The list can be read in its entirety at http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm		
Tin-organic compounds		
Phthalates		
APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation).		
Halogenated organic substances – preservatives that fulfil R4 and paint pigments that meet the EU's requirements concerning colourants in food packaging under Resolution AP (89) are exempted.		
Isocyanates (water-based polyisocyanates with a chain length of more than 10 are exempted, where the concentration of isocyanates with a chain length of less than 10 as an impurity is documented).		
Fragrances		
PBT and vPvB substances as defined in Annex XIII of REACH (Regulation (EC) No 1907/2006). Substances that meet, or substances that form substances that meet, the PBT or vPvB criteria are listed at http://esis.jrc.ec.europa.eu/index.php?PGM=pbt. Substances that are "deferred" or substances "under evaluation" are not considered to have PBT or vPvB properties.		
O13, O16, O19, O22, O24 Does the rawmaterial contain Volatile organic compounds (VOC) Volatile aromatic hydrocarbons (VAH)		

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg/kg). For nanoparticles, also state what type of particles, and for VOC/VAH also state the boiling point:

_____

_____

_____

_____

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

Place and date:	Company name/stamp:
Responsible person:	Signature of responsible person:

Appendix 3 Example of recipe structure

Example of recipe structure to be used when applying for the Nordic Ecolabel

Chemicals building Product Name: Xxx				Chemical building product Formula nr. Xxx						
Substance reference nr.	Company name	Product name:	Function in the chemical building product	CAS nr.	Substance content	% in sub-stance	CAS nr.	Classifi-cation peer compo-nent	Substance content in the chemical building product	Content % peer component in product
1…	-	Water	Solvent	7732-18-5	Water	100,000	7732-18-5	-	14,97	14,9700
2…	Xxx	Xxx	pH regulator	1310-73-2	Sodium hydroxide	95,000	1310-73-2	R35	9	8,5500
					Water	5,000	7732-18-5	-		0,0000
3…	Xxx	Xxx	Dispersing agents	-	Acrylic Polymers	30,000	-	-	7	2,1000
					Water	69,995	7732-18-5	-		0,0000
					1,2-Benzisothiazol-3(2H)-one	0,005	2634-33-5	R34, R43, R52/53		0,0000
4…	Xxx	Xxx	Pigment	xxxx-xx-x	Titanium dioxide	96,000	13463-67-7	-	20	19,2000
					Aluminium hydroxide	4,000	21645-51-2	-		0,0000
5…	Xxx	Xxx	Light stabilizer	-	Xxx	xx,xx	xxxx-xx-x	R41	5	-
					Xxx	xx,xx	xxxx-xx-x	-		-
6…	Xxx	Xxx	Thickener/ rheology modifier	xxxx-xx-x	Acrylic emulsion	30,000	xxxx-xx-x	-	10	3,0000
					Xxx	xx,xx	xxxx-xx-x	-		-
					Xxx	xx,xx	xxxx-xx-x	-		-
7…	Xxx	Xxx	Binder	xxxx-xx-x	Xxx	xx,xx	xxxx-xx-x	-	34	-
					Xxx	xx,xx	xxxx-xx-x	-		-
					Xxx	xx,xx	xxxx-xx-x	-		-
8…	Xxx	Xxx	Biocide/preservatives	xxxx-xx-x	1,2-Benzisothiazol-3(2H)-one	5,000	2634-33-5	R34, R43, R52/53	0,03	0,0015
					Xxx	xx,xx	xxxx-xx-x	R22, R37/38, R41, R50		-
					Xxx	xx,xx	xxxx-xx-x	Xn; N; R22, 41, 43, 50		-

Appendix 4 Marketing of Nordic Ecolabelled chemical building products

We hereby certify that we are well acquainted with the regulations governing the use of the Nordic Ecolabel, as detailed in "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions. We agree to follow these regulations when marketing the Nordic Ecolabelled chemical building product.

Further, we confirm that we are familiar with the criteria document regarding the Nordic Ecolabelling of chemical building products.

We undertake to advise those individuals within the company involved in marketing the Nordic Ecolabelled chemical building product of the criteria for the Nordic Ecolabelling of chemical building products and "Regulations for the Nordic Ecolabelling of products" 22 June 2011 or later versions.

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

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

Appendix 5 Comparative tests for adhesives, fillers and sealants

In the requirements concerning quality, there is an option for adhesives (O15), sealants (O18) and fillers (O21) to show the quality of the product by means of comparative tests. The following applies for such comparative tests:

1. Testers

At least 5 professional users must have used the product for at least 3 months (company name, number of years in profession).

2. User report

There must be at least 1 user report for each area of application for which the product is marketed.

Each user report must be signed and dated by the tester.

3. Evaluation

The properties of the product in each specific area of application are to be graded on a scale of 1 to 5 (see table below).

Table A5. Grading scale key

Grade	Description
1	Product does not work
2	Product works poorly
3	Product works
4	Product works well
5	Product works very well

Each user should also make an overall assessment that can include additional parameters beyond the specific properties during use (e.g. ability to remove adhesive or ease of handling).

Parameters that are given a grade of 1-2 are considered not to have passed.

The licence applicant must summarise all the test reports and make an evaluation of the overall results.

4. Requirement level

The product is considered to show satisfactory performance if all the properties achieve a grade of 3 or more.

Appendix 6 Analysis and test laboratories

For all quality tests (except comparative tests as set out in Appendix 5), the test laboratory must comply with one of the following:

- The test laboratory meets the general requirements set out in standard EN ISO/IEC 17025.
- or
- The test laboratory is officially GLP approved.

The company's own laboratory may act as a test laboratory if:

- The laboratory is covered by the company's certified quality management system.