Nordic Ecolabelling for

Ski wax

Version 1.0 • 15/06/2018 – 30/06/2023

Nordic Ecolabelling

Content

106 Ski wax, version 1.0, 15/06/2018

This document is a translation of an original in Norwegian. 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 Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf of their own country's government. For more information, see the websites:

Denmark
Ecolabelling Denmark
Danish Standards Foundation
Göteborg Plads 1
DK-2150 Nordhavn
Tel: +45 72 300 450
info@ecolabel.dk
www.ecolabel.dk

Iceland
Ecolabelling Iceland
Norræn Umhverfismerking
á Íslandi
Suðurlandsbraut 24
IS-108 Reykjavik
Tel: +354 591 20 00
ust@ust.is
www.svanurinn.is

Finland
Ecolabelling Finland
Urho Kekkosen katu 4-6 E
FI-00100 Helsinki
Tel: +358 9 61 22 50 00
joutsen@ecolabel.fi
www.ecolabel.fi

Norway
Ecolabelling Norway
Henrik Ibsens gate 20
NO-0255 Oslo
Tel: +47 24 14 46 00
info@svanemerket.no
www.svanemerket.no

Sweden
Ecolabelling Sweden
Box 38114
SE-100 64 Stockholm
Tel: +46 8 55 55 24 00
info@svanen.se
www.svanen.se

What is a Nordic Swan Ecolabelled ski wax?

A Nordic Swan Ecolabelled ski wax is one of the most environmentally-friendly ski waxes available. There are strict requirements concerning the constituent substances, including a ban on organofluorine compounds, the objective of which is to protect human health and the environment. Nordic Swan Ecolabelled ski wax has been tested for performance and its effectiveness has been proven to be at least as good as equivalent fluorine-containing products.

A Nordic Swan Ecolabelled ski wax:

- Is fluorine-free
- Provides good glide performance
- Is dirt-repellent
- Has good wear resistance
- Has been proved to be as good as equivalent fluorine-containing waxes.

Why choose the Nordic Swan Ecolabel?

- The producer may use the Nordic Swan Ecolabel trademark for marketing. The Nordic Swan Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Swan Ecolabel is a simple way of communicating environmental work and commitment to customers.
- The Nordic Swan Ecolabel clarifies the most important environmental impacts and thus shows how a company can cut emissions.
- Environmentally suitable operations prepare ski wax for future environmental legislation.
- Nordic Ecolabelling can be seen as providing a business with guidance on the work of environmental improvements.
- The Nordic Swan Ecolabel covers not only environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Swan Ecolabel licence can also be seen as a mark of quality.

What can carry the Nordic Swan Ecolabel?

Glide wax products for all types of skis and boards intended for use on snow. This includes products that improve glide on skin skis.

Base prep waxes, kick/grip waxes, klister and wax removers cannot be Nordic Swan Ecolabelled.

How to apply

Application and costs

For information about the application process and fees for this product group, please refer to the respective national website. For addresses see page 2.

What is required?

The application must consist of an application form/web form and documentation showing that the requirements are fulfilled.

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

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

🔑 Requirement checked on site

All information submitted to Nordic Ecolabelling is treated confidentially. Suppliers can send documentation directly to Nordic Ecolabelling, and this will also be treated confidentially.

License validity

The Nordic Swan 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.

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.

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See page 2 for addresses. Further information and assistance (such as calculation sheets or electronic application help) may be available. Visit the relevant national website for further information.

1 General requirements

The requirements in the criteria document and its appendices apply to all ingoing substances in the ski wax, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

Ingoing substances: All substances in the ski wax, including additives (e.g. preservatives and stabilisers) in 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: Residuals, pollutants, contaminants etc. from production, including production of raw materials that remain in the finished ski wax in concentrations less than 100.0 ppm (0.01000% by weight, 100.0 mg/kg).

Impurities in the raw materials at concentrations of more than 1.0% are always regarded as ingoing substances, regardless of the concentration in the finished ski wax.

Examples of impurities are residues of the following: residues of reagents including residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

O1 Description of the product

Applicants must provide the following information about the product:

- A description of the product, including a description of its uses, as related to the product descriptions in “What can carry the Nordic Swan Ecolabel?”.
- Product formulation. For each ingoing substance, the formulation must specify:

  Trade name

  Chemical name

  Constituent quantities

  CAS no./EC no. where possible

  Function
- A safety data sheet for each raw material

  If the raw materials are made up of several ingoing substances, information about all of the ingoing substances must be provided on the product formulation.

☒ A description of the product as related to the product description in “What can carry the Nordic Swan Ecolabel?” For example a label and/or user instructions.
☒ Complete formulation with information in compliance with the requirement.
☒ A safety data sheet for each raw material in compliance with current European legislation (Appendix II of REACH, Regulation No. 1907/2006/EC) if required for the product.

O2 Classification of product

The product may not be classified as specified in table O2 below.

Table O2 Classification of product

CLP Regulation 1272/2008:		
Hazard class	Hazard class and category	Hazard code
Toxic to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 4	H400 H410 H411 H412 H413
Hazardous to the ozone layer	Ozone 1	H420
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Reproductive toxicity*	Repr. 1A or 1B Repr. 2 -	H360 H361 H362
Acute toxicity	Acute Tox. 1 or 2 Acute Tox. 1 or 2 Acute Tox. 1 or 2 Acute Tox. 3 Acute Tox. 3 Acute Tox. 3 Acute Tox. 4 Acute Tox. 4 Acute Tox. 4	H300 H310 H330 H301 H311 H331 H302 H312 H332
Specific target organ toxicity	STOT SE 1 STOT SE 2 STOT RE 1 STOT RE 2 STOT SE 3**	H370 H371 H372 H373 H335, H336
Corrosive to the skin	Skin Corr. 1A, 1B or 1C	H314
Serious eye damage	Eye Dam.1	H318
Aspiration hazard	Asp. Tox. 1	H304
Sensitisation by inhalation or skin contact	Resp. Sens. 1, 1A or 1B Skin sens. 1, 1A or 1B Products labelled with "Contains <name of sensitising substance>. May cause an allergic reaction." are not permitted.	H334 H317 EUH208

** Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers H350i.*

***The prohibition applies to products that are applied with spray or heat.*

☒ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation No. 1907/2006/EC) if required for the product.
☒ The product's label.

2 Requirements concerning ingoing substances

O3 Classification of ingoing substances

Ingoing substances may not be classified as specified in table O3 below.

Table O3 Classification of ingoing substances

CLP Regulation 1272/2008:		
Hazard class	Hazard class and category	Hazard code
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Reproductive toxicity*	Repr. 1A or 1B Repr. 2 -	H360 H361 H362

** Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers H350i.*

☒ Safety data sheets for each raw material in compliance with current European legislation (Annex II of REACH, Regulation No. 1907/2006/EC)
☒ Duly completed and signed declarations from manufacturers and from raw material producers/suppliers. Appendices 2 and 3 are used.

O4 Substances that must not be present

The following substances must not be present in the product:

- Organofluorine compounds
- Halogenated and/or aromatic solvents
- Substances of Very High Concern (SVHC) on the Candidate List in REACH: https://echa.europa.eu/candidate-list-table
- Siloxane D4, D5, D6, HMDS (octamethylcyclotetrasiloxane CAS no. 556-67-2, decamethylcyclopentasiloxane CAS no. 541-02-6, dodecamethylcyclohexasiloxane CAS no. 540-97-6, hexamethyldisiloxane CAS no. 107-46-0).

  Impurities of D4, D5, D6 and HMDS in silicone raw materials at concentrations of more than 0.10% are always considered to be ingoing substances.
- Substances that are PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) according to the criteria in Annex XIII of REACH.
- 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 is available for viewing at

http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, pages 238 - 249)

- Phthalates
- Nanomaterial/particles as defined in the European Commission's recommendation no. 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" (extract from the European Commission's recommendation no. 2011/696/EU, published 18 October 2011). Examples include ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize at concentrations above 50%. Polymer emulsions are not considered to be a nanomaterial.

✉ Duly completed and signed declarations from manufacturers and from raw material producers/suppliers. Appendices 2 and 3 are used.

O5 Aerobic degradability

All organic ingoing substances and their degradation products must be aerobically biodegradable in accordance with OECD 301 A-F or OECD 310 (readily biodegradable) or 302 A-C (inherently biodegradable).

- Dyes are exempted from this requirement.

✉ The degradability must be documented in a test report. See Appendix 1.1 on test laboratory requirements. Documentation from other sources, such as the safety data sheet for the substance or a REACH dossier, will be accepted as an alternative to a complete test report. In such cases, proof must be provided that the test laboratory complies with the requirement of Appendix 1.1 and there must be references to the test method and a summary of the test results.

✉ For substances on the DID List, the degradability may be documented with reference to the DID List part A, dated 2016 or subsequent versions (see Appendix 1.2).

3 Functionality

The Nordic Swan Ecolabelled product must be equally as good as or better than a reference product in terms of glide, wear resistance and dirt-repellent properties.

O6 Reference product

- The reference product must be a well-established product in the market in the Nordic region or one of the Nordic countries.
- The reference product must be tested under the same surface conditions as the Nordic Swan Ecolabelled product.
- The reference product must be a fluorine-containing product of the type LF (Low Fluorine) or higher.
- If the Nordic Swan Ecolabelled product is to be marketed in the category of HF products, Nordic Ecolabelling requires that it shall be tested against a HF product.

The same reference product must be used for all the tests.

✉ Rationale for the choice of reference product, in line with the requirement.

O7 Glide and wear resistance

Glide performance and wear resistance must be tested on cross-country skis. The applicant shall, upon request by Nordic Ecolabelling, enable Nordic Ecolabelling to monitor at least one test run in field.

Glide must be tested in the field (glide test 1) on freshly-prepared skis.

Wear resistance must be tested in the field (glide test 2). This test is carried out after the product and the reference product have been used on a ski tour. The test requires ski touring over a distance of 25 to 35 kilometres.

One test session comprises glide test 1, a ski tour and glide test 2. At least six test sessions must be performed. Each test session must comprise at least six runs down the test slope with each product (each pair of skis) in glide test 1 and glide test 2. The test sessions must be conducted in weather conditions and surface conditions that are representative of the conditions for which the products are designed and intended.

- Glide test 1. The glide performance of the product must be equally as good as or better than the reference product in at least 80% of the glide tests on newly-prepared skis (at least 5 out of 6 times).
- Glide test 2. The glide performance of the product must be equally as good as or better than the reference product in at least 80% of the glide tests after ski touring.

See Appendix 4 for a description of the criteria for glide tests.

✉ A test report containing the information that is specified below. Appendix 5 can be used.

- The person responsible for conducting the test
- Weight and height of the testing persons
- Information about the skis: make and production series, number of pairs, and how the skis have been prepared, and ski length
- A description of the glide track
- Information about the weather conditions and surface conditions for the glide tests and the ski tours: Time of day, weather, air temperature, humidity, snow temperature and a description of the snow quality. State the reason why the weather conditions and surface conditions are relevant.
- Location, distance (in kilometres) and duration (time) of the ski trips
- Results, including relevant statistical evaluation
- A description of how the skis have been prepared before calibration, between calibration and the first test session and between the test sessions

O8 Dirt-repellent properties

The dirt-repellent properties of the product should be equally as good as or better than those of the reference product. This shall be documented by a laboratory test measuring water contact angle with a goniometer (same or greater hydrophobicity).

- The product and the reference product must be tested on a relevant surface (e.g. Ultra High Molecular Weight Polyethylene, which is used in ski bases).
- At least six tests must be run in parallel per product.
- The tests must be performed in a laboratory that meets the requirement for test laboratories stated in Appendix 1.1.

✉ A test report that shows that this requirement has been met, performed by a laboratory that meets the requirement stated in Appendix 1.1.

4 Packaging

O9 Spray cans

Metal spray cans with propellant gas must have an information text on the label explaining how to dispose of the packaging. The text must be in accordance with national recommendations.

Denmark and Norway: The empty spray can must be disposed of to the municipality as hazardous waste.

Finland and Sweden: A spray can that is completely empty of contents and propellant gas goes into the normal metal recycling. Otherwise, it should be disposed of as hazardous waste.

✉ The product's label.

5 Quality and regulatory requirements

To ensure compliance with Nordic Ecolabelling requirements, the following procedures must be implemented.

O10 Responsible person and organisation

The company shall appoint individuals who are responsible for ensuring the fulfilment of the Nordic Ecolabelling requirements, for marketing and for finance, as well as a contact person for communications with Nordic Ecolabelling.

✉ Organisational chart showing who is responsible for the above.

O11 Documentation

The licensee must archive the documentation that is sent in with the application, or in a similar way maintain information in the Nordic Ecolabelling data system.

🔑 Checked on site as necessary.

O12 Quality

The licensee must guarantee that the quality of the Nordic Swan Ecolabelled product does not deteriorate during the validity period of the licence.

🔑 The claims archive is checked on site.

O13 Planned changes

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

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

O14 Unplanned nonconformities

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

✉ Procedures detailing how unplanned nonconformities are handled.

O15 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled ski wax in the production. For a produced/sold product, it must be possible to trace time and date, production site and, if relevant, on which production line the product was produced. Moreover, it must be possible to trace which raw materials were actually used for the specific product (raw material batches, suppliers).

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

O16 Legislation and regulations

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

✉ Duly signed application form.

Regulations for the Nordic Ecolabelling of products

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

More information on graphical guidelines, regulations and fees can be found at www.nordic-ecolabel.org/regulations

Follow-up inspections

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

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

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

History of the criteria

Nordic Ecolabelling adopted version 1.0 of the criteria for ski wax on 15 June 2018. The criteria are valid until 30 June 2023.

New criteria

For the next revision, when generating the second generation of the ski wax criteria, the following will be considered:

No requirements are set for material types and packaging recyclability. This may change in future versions of the criteria.

It may be presumed that the quantities of inhalable aerosols from spray-on ski waxes exceed those from waxes applied by other means. o requirements are set for mechanisms to control or restrict the quantities of inhalable aerosols from spray products. This may increase the risk of adverse health impacts. Heating during application of glide wax may also increase the risk of adverse health effects due to evaporation of product, which can be inhaled. In future revisions it may be appropriate to look into this.

Other areas for which no requirements are set, but which may be reviewed and changed in future versions of the criteria, are volatile organic compound content restrictions, requirements promoting use of renewable raw materials and requirements for health, environmental and safety instructions for the application of the products.

Appendix 1 Test methods and analysis laboratories

1 Requirements for test/analysis laboratories

The laboratory must be competent and independent. The laboratory must fulfil the general requirements of the EN ISO 17025 Standard or be an officially GLP-approved laboratory.

2 The DID List

The Detergent Ingredient Database (DID List) has been produced jointly by the EU Ecolabel and Nordic Ecolabelling. Developed by stakeholders from consumer and environmental organisations in collaboration with industrial partners, it contains data on the toxicity and degradability of substances that might be used for products in the field of chemical technology. The DID List does not show which substances are found in ecolabelled products.

The DID List cannot be used as documentation for the toxicity of individual substances in relation to the classification rules. In this case, information from safety data sheets, literature or the raw material manufacturer must be used.

The DID List is available upon request from the ecolabelling organisation or via the website of each respective country (see page 2). The DID List Part A can be downloaded directly from http://www.svanemerket.no/PageFiles/5783/DID-list%202016%20part%20A.pdf

The DID List from 2016 or later versions shall apply for these criteria.

Appendix 2 Declaration from the ski wax manufacturer

This declaration must be completed by the ski wax manufacturer when applying for the Nordic Swan Ecolabelling of a ski wax, version 1.

This declaration is based on the knowledge we have at the time based on tests and/or declarations from raw material producers. Should more knowledge become available, the undersigned is obligated to submit an updated declaration to Nordic Ecolabelling.

Product name: _____

Definitions:

- Ingoing substances: All substances in the ski wax, including additives (e.g. preservatives and stabilisers) in 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: Residuals, pollutants, contaminants etc. from production, including production of raw materials that remain in the finished ski wax in concentrations less than 100.0 ppm (0.01000% by weight, 100.0 mg/kg).
- Impurities in the raw materials at concentrations of more than 1.0% are always regarded as ingoing substances, regardless of the concentration in the finished ski wax.

Examples of impurities are residues of the following: residues of reagents including residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

O3: Does the raw material contain substances/impurities that have any of the following classifications? Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers H350i.				
H350 – Carcinogenic, Carc 1A or 1B	Yes	☐	No	☐
H351 – Carcinogenic, Carc 2	Yes	☐	No	☐
H340 – Germ cell mutagenicity, Muta 1A or 1B	Yes	☐	No	☐
H341 – May cause genetic defects, Muta 2	Yes	☐	No	☐
H360 – Toxic for reproduction, Repr 1A or 1B	Yes	☐	No	☐
H361 – Toxic for reproduction, Repr 2	Yes	☐	No	☐
H362 – Toxic for reproduction – effects on or through breastfeeding (supplementary category)	Yes	☐	No	☐
O4: Does the raw material contain substances/impurities with the following properties?				
Organofluorine compounds	Yes	☐	No	☐
Halogenated and/or aromatic solvents	Yes	☐	No	☐
Substances of Very High Concern (SVHC) on the Candidate List in REACH: https://echa.europa.eu/candidate-list-table	Yes	☐	No	☐

Siloxane D4, D5, D6, HMDS (octamethylcyclotetrasiloxane CAS no. 556-67-2, decamethylcyclopentasiloxane CAS no 541-02-6, dodecamethylcyclohexasiloxane CAS no. 540-97-6, hexamethyldisiloxane CAS no. 107-46-0)	Yes	☐	No	☐
Substances that are PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) according to the criteria in Annex XIII of REACH.	Yes	☐	No	☐
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 is available for viewing at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, pages 238 - 249)	Yes	☐	No	☐
Nanomaterial/particles as defined in the European Commission's recommendation no. 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" (extract from the European Commission's recommendation no. 2011/696/EU, published 18 October 2011). Examples include ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize at concentrations above 50%. Polymer emulsions are not considered to be a nanomaterial.	Yes	☐	No	☐
Phthalates	Yes	☐	No	☐

If the answer is yes to any of the above questions: State the CAS no. (where possible), chemical name, quantity (in ppm, % by weight or mg/kg). Also state whether the substance is an impurity or ingoing substance.

_____

_____

_____

_____

Place and date	Company name/stamp
Person responsible, name and title (block capitals)	Signature of person responsible
Phone	E-mail

Appendix 3 Declaration from the manufacturer/supplier of the raw material

This declaration must be completed by the manufacturer/supplier of a raw material when applying for the Nordic Swan Ecolabelling of a ski wax, version 1.

The information in this declaration is internally shared with certification personnel in Nordic Ecolabelling to be used in evaluation of applications of chemical technical products.

This declaration is based on the knowledge that we have at the time. Should more knowledge become available, the undersigned is obligated to submit an updated declaration to Nordic Ecolabelling.

Raw material/ingredient name: _____

Function of the raw material/ingredient:_____

Definitions:

- Ingoing substances: All substances in the ski wax, including additives (e.g. preservatives and stabilisers) in 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: Residuals, pollutants, contaminants etc. from production, including production of raw materials that remain in the finished ski wax in concentrations less than 100.0 ppm (0.01000% by weight, 100.0 mg/kg).
- Impurities in the raw materials at concentrations of more than 1.0% are always regarded as ingoing substances, regardless of the concentration in the finished ski wax.

Examples of impurities are residues of the following: residues of reagents including residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

Note! Both impurities and ingoing substances must be stated in this appendix if they have any of the properties listed in the table below. The manufacturer of the Nordic Swan Ecolabelled product is responsible for calculating the quantities of impurities and ensuring compliance with the requirements in the criteria.

O3: Does the raw material contain substances/impurities that have any of the following classifications? Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers H350i.				
H350 – Carcinogenic, Carc 1A or 1B	Yes	☐	No	☐
H351 – Carcinogenic, Carc 2	Yes	☐	No	☐
H340 – Germ cell mutagenicity, Muta 1A or 1B	Yes	☐	No	☐
H341 – May cause genetic defects, Muta 2	Yes	☐	No	☐
H360 – Toxic for reproduction, Repr 1A or 1B	Yes	☐	No	☐
H361 – Toxic for reproduction, Repr 2	Yes	☐	No	☐

H362 – Toxic for reproduction – effects on or through breastfeeding (supplementary category)	Yes	☐	No	☐
O4: Does the raw material contain substances/impurities with the following properties?				
Organofluorine compounds	Yes	☐	No	☐
Halogenated and/or aromatic solvents	Yes	☐	No	☐
Substances of Very High Concern (SVHC) on the Candidate List in REACH: https://echa.europa.eu/candidate-list-table	Yes	☐	No	☐
Siloxane D4, D5, D6, HMDS (octamethylcyclotetrasiloxane CAS no. 556-67-2, decamethylcyclopentasiloxane CAS no 541-02-6, dodecamethylcyclohexasiloxane CAS no. 540-97-6, hexamethyldisiloxane CAS no. 107-46-0)	Yes	☐	No	☐
Substances that are PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) according to the criteria in Annex XIII of REACH.	Yes	☐	No	☐
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 is available for viewing at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, pages 238 - 249)	Yes	☐	No	☐
Nanomaterial/particles as defined in the European Commission's recommendation no. 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" (extract from the European Commission's recommendation no. 2011/696/EU, published 18 October 2011). Examples include ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize at concentrations above 50%. Polymer emulsions are not considered to be a nanomaterial.	Yes	☐	No	☐
Phthalates	Yes	☐	No	☐

If the answer is yes to any of the above questions: State the CAS no. (where possible), chemical name, quantity (in ppm, % by weight or mg/kg). Also state whether the substance is an impurity or ingoing substance.

_____

_____

_____

_____

Place and date	Company name/stamp
Is the company a manufacturer or distributor of the raw material? ☐ Manufacturer ☐Supplier	
Person responsible, name and title (block capitals)	Signature of person responsible
Phone	E-mail

Appendix 4 Criteria for testing glide performance (O7)

This appendix contains criteria for testing glide. A glide test must be performed to document the glide of newly-prepared skis (glide test 1) and as part of the documentation of wear resistance (glide test 2). The glide of different glide wax products is compared in a glide performance test. The test involves measuring the time it takes to glide down a slope on the same type of skis prepared using different glide wax products.

Preparation

- Choose a suitable number of pairs of skis (same make and production series) so that there are enough pairs of skis to test glide performance after calibration. (There must be two pairs of skis if you only have one test product, since you also need to have one reference product.) The pairs of skis must have the same span characteristics and structure and be prepared in the same way.
- All of the tests on the skis must be carried out by the same person for all the pairs of skis. Exceptions: Ski trips carried out in connection with the wear resistance test must be carried out simultaneously on all the pairs of skis (one pair of skis per test product and one pair of skis with the reference product). This means that the two pairs of skis are worn by two different people. The test subjects should have about the same weight (max weight difference 10%) and ski about as fast.

- Calibrating the skis:

    a) Perform the glide test as described in "Performing a test" below. All the pairs of skis must be prepared with the reference product during calibration.
    b) Calculate the arithmetic mean glide time for all of the pairs of skis individually.
    c) Pairs of skis which have mean glide times that are clearly outliers shall be discarded.
    d) Calculate the arithmetic mean glide time for all the remaining pairs of skis combined, and put a set of test skis together by selecting from those pairs that are within ±0.04 seconds of the mean glide time.
    e) Other statistical methods than b-d may also be used to select a set of test skis. If so, the choice of statistical method shall be justified by the applicant and approved by Nordic Ecolabelling.

Performing a test session

- The test slope must be steep at the start and level out at the end.
- The track must be smooth. There must be no inclination across the track.
- The glide run must last 10 to 20 seconds with an average speed of 25 to 30 km/hour.
- Glide test 1: Measure the time it takes to glide down the test slope. In every test session, each product (i.e. each pair of skis) must be skied down the test slope at least six times in glide test 1 (and in glide test 2). Glide

down the test slope once with all the different products before you start on glide run number two. Likewise, do glide run number two with all the different products before you start on glide run number three, and so on. You cannot glide down with one particular product twice or more before you glide down with the next product.

- A 25-35 kilometre ski tour is conducted on each pair of skis. The ski tour must be conducted simultaneously for the different products. The persons conducting the tests must be approximately the same weight and must ski at about the same speed.
- Glide test 2 is conducted (as glide test 1, see above). Glide test 2 after a ski tour is a measure of the product's wear resistance.

Between each test session

- The skis must be cleaned with wax remover.
- The skis must be prepared again. Use the same set of test skis.
- Repeat glide test 1, the ski tour and glide test 2 as described in "Performing a test" above. The entire test session must be repeated at least six times.

Appendix 5 Report form for glide performance and wear resistance tests (O7)

This is a proposal for the form. The applicant may use their own form with a different layout, if they prefer.

A test session comprises a glide test on newly-prepared skis (glide test 1), a ski tour and a glide test after the ski tour (glide test 2). At least six test sessions must be performed. At least six glide runs must be performed in glide test 1 and in glide test 2 for each test session. A form (Appendix 5) must be completed for each test session. This means there will be total of six forms. New calibration is not required for each test session.

General information

Test site:_____

Test period (date):_____

Test session number:_____

Person responsible, name: _____

Weight and height of testing person:_____

Organisation:_____

Calibration

Pair of skis no.	SKU/Production series	Length of skis [cm]	Glide wax (reference product)	Glide run number, time [s]						Mean [s]	Std. deviation	*
				1	2	3	4	5	6			

Arithmetic mean glide time for all pairs of skis combined (cf. appendix 4 c-d):_____

*Mark any outliers in the right column of the table with "O". Mark which pairs of skis that are chosen to make up a set of test skis with "T" (cf. appendix 4 b-d).

Glide track information

Length of glide track (metres): _____

Inclination at start (approx. angle): _____

Inclination at finish (approx. angle):_____

Is the track smooth, without any crosswise inclination?_____

Glide test 1 (before ski tour)

Pair of skis no.	Product (glide wax)	Glide run number, time [s]						Mean [s]	Std. deviation
		1	2	3	4	5	6		

Calculate the mean (arithmetic mean) for each pair of skis, i.e. each product and report it in the "Mean" column. Report the glide time with the number of decimals that corresponds to the first significant figure in the standard deviation. If the glide time for the test product is equal to or lower than for the reference product, the glide for the test product is considered as good or better than the reference product for that particular test session.

Ski tour information

Ski pair number	Test product (glide waxes)	Weight (kg) and height (cm) of test person	Distance of ski tour (km)	Duration of ski tour (time)

The ski tour must be conducted simultaneously for the test product(s) and the reference product. The persons conducting the tests must be approximately the same weight (max weight difference 10%) and must ski at about the same speed.

Glide test 2 (after ski tour)

Pair of skis no.	Product (glide wax)	Glide run number, time [s]						Mean [s]	Std. deviation
		1	2	3	4	5	6		

Calculate the mean (arithmetic mean) for each pair of skis, i.e. each product and report it in the "Mean" column. Report the glide time with the number of decimals that corresponds to the first significant figure in the standard deviation. If the glide time for the test product is equal to or lower than for the reference product, the glide for the test product is considered as good or better than the reference product for that particular test session.

Weather conditions and surface conditions

Time of day, weather, air temperature, humidity, snow temperature and a description of the snow quality at the starting time of glide test 1:

Time of day, weather, air temperature, humidity, snow temperature and a description of the snow quality at the end of glide test 1:

Time of day, weather, air temperature, humidity, snow temperature and a description of the snow quality during the ski tour:

Time of day, weather, air temperature, humidity, snow temperature and a description of the snow quality at the starting time of glide test 2:

Time of day, weather, air temperature, humidity, snow temperature and a description of the snow quality at the end of glide test 2:

Explain why the weather and snow conditions are relevant to the intended use of the products:

Preparing the skis

Describe how the skis have been cleaned and prepared before calibration:

Describe how the skis have been cleaned and prepared after calibration, before the first test session:

Describe how the skis have been cleaned and prepared between the test sessions:

Comments on the test implementation and results, if any