Nordic Ecolabelling for

# Care products for vehicles



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Nordic Ecolabelling

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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.

# Contact information

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
www.svanemaerket.dk

**Finland**
Ecolabelling Finland
www.joutsenmerkki.fi

**Sweden**
Ecolabelling Sweden
www.svanen.se

**Iceland**
Ecolabelling Iceland
www.svanurinn.is

**Norway**
Ecolabelling Norway
www.svanemerket.no

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# What is a Nordic Swan Ecolabelled care product for vehicles?

Tough requirements concerning raw materials, chemicals and packaging ensure that Nordic Swan Ecolabelled care products for vehicles reduce the impact on our environment.

Nordic Swan Ecolabelled care products for vehicles:

- Meet strict requirements regarding environmentally hazardous chemicals, including requirements targeting ecotoxicity and degradability.
- Comply with tough requirements relating to chemicals that are harmful to health, including a ban on substances that are classified as carcinogenic, mutagenic or reprotoxic.
- Perform effectively and produce the required results.
- Meet tough requirements concerning volatile organic compounds and thus make a minimal contribution to the formation of tropospheric (near ground level) ozone.
- Have packaging that contributes to a circular economy, not least through its design and material choices.
- Have information on the packaging about how to use the product. This includes instructions on washing in a location where the drains are connected to a water treatment plant in order to protect the environment.

# Why choose the Nordic Swan Ecolabel?

- The licence holder 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, resource consumption and waste management.
- Environmentally adapted operations prepare manufacturers for future environmental legislation.
- Nordic Swan Ecolabelling can be seen as providing a business with guidance on the work of environmental improvements.
- The Nordic Swan 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 Swan Ecolabel licence can also be seen as a mark of quality.

# What can carry the Nordic Swan Ecolabel?

Products that have a cleaning function (e.g. degreasers, shampoos and windscreen washer fluids) and / or polishing function (e.g. waxes or polishes) for the care of cars, buses, trucks, boats, ships, planes, motorcycles, bicycles and equivalent and trains and other rail transport can be Nordic Swan Ecolabelled.

Both consumer products and products for professional use can be Nordic Swan Ecolabelled.

Drying aids for automated wash installations can only be Nordic Swan Ecolabelled if they are part of a system together with other Nordic Swan Ecolabelled cleaning and / or polishing products for automated wash installations. All the products in the system must carry the Nordic Swan Ecolabel.

The criteria are not applicable to products whose main purpose is something other than the care of cars, buses, trucks, boats, ships, motorcycles, planes, bicycles and equivalent and trains and other rail transport.

Specialist products such as anti-corrosion agents, hull cleaners, antifouling paint, wood oil and appliances for mechanical cleaning (such as washing sponges, brushes, cloths or equivalent) cannot be Nordic Swan Ecolabelled in accordance with these criteria.

# 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 contact information see in the beginning of this document.

### 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.

### Licence 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 contact information in the beginning of this document. 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 accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled care products for vehicles. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements

- Ingoing substances: all substances in the Nordic Swan Ecolabelled product, 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, incl. production of raw materials that remain in the raw material / ingredient and / or in the in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w-%, 100 mg / kg) in the Nordic Swan Ecolabelled product.
- Impurities in the raw materials exceeding concentrations of 1,0 % are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

Examples of impurities are residues of the following: residues or reagents incl. 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

The applicant must provide the following information about the product:

- Description of the product's area of use.
- The product's volume.
- All trade names if the product is sold in several countries.
- Whether the product is intended for consumers or professional use.
- Whether the product is intended for manual washing or automated wash installations, and whether it is part of a system together with other Nordic Swan Ecolabelled cleaning and / or polishing products for automated wash installations.
- The product's dosing stated as grams / litre of working solution and a description of how this value was arrived at, based on the recommended dosing on the label / product sheet.

✉ Description of the product in line with Appendix 1.

✉ Product sheets and labels can be sent in as part of the documentation.

## O2 Formulation

The applicant must provide a complete formulation for the product. The formulation must contain the following information for each ingoing raw material:

- Trade name
- Chemical name of main component and any additives (e.g. colourants, preservatives and stabilisers)
- Amount (both with and without solvents, e.g. water)
- CAS no. / EC no.
- Function
- DID number* for substances that may be placed on the DID list

** The DID number is an ingredient's number on the DID list, version 2016 or later, which is used when calculating chemical requirements. The DID list can be obtained from Nordic Ecolabelling's websites, see addresses on page 3.*

✉ The complete formulation of the product as set out in the requirement. Nordic Ecolabelling's calculation sheet may be used. It is available from our websites.

✉ Safety data sheet for each raw material in line with prevailing European legislation (Annex II to REACH (Regulation 1907/2006/EEC)).

## O3 Sustainable raw materials

The licence holder must document that they are working on increasing their purchases of renewable raw materials that are sustainable and / or that they require the manufacturer to work on increasing its purchase of sustainable, renewable raw materials for Nordic Swan Ecolabelled care products for vehicles. This may be done, for example, by promoting certified raw materials, avoiding problematic raw materials, switching from fossil raw materials to sustainable alternatives or increasing the proportion of palm oil that has RSPO certification (Round Table for Sustainable Palm Oil). The targets must be quantifiable, time-based and set by senior management.

*A renewable raw material is defined as a raw material originating from biological material which is renewed continuously in nature within the immediate future, such as cereals and wood (European standard EN 16575:2014).*

✉ Policy or equivalent documentation stating the licence holder's work on ensuring sustainable, renewable raw materials in Nordic Swan Ecolabelled products, including quantifiable and time-based targets that are set by senior management.

## O4 Classification of the product

The product must not have a classification listed in Table 1.

Table 1 **Classification of the product**

| **CLP Regulation 1272/2008:** | | |
|---|---|---|
| **Hazard class** | **Code for hazard class and category** | **Hazard statement code** |
| Toxic to aquatic organisms | Aquatic Acute 1<br>Aquatic Chronic 1<br>Aquatic Chronic 2<br>Aquatic Chronic 3<br>Aquatic Chronic 4 | H400<br>H410<br>H411<br>H412<br>H413 |
| Hazardous to the ozone layer | Ozone | H420 |
| Carcinogenicity* | Carc. 1A or 1B<br>Carc. 2 | H350<br>H351 |
| May cause genetic defects* | Muta. 1A or 1B<br>Muta. 2 | H340<br>H341 |
| Toxic for reproduction* | Repr. 1A or 1B<br>Repr. 2<br>Lact. | H360<br>H361<br>H362 |
| Acute toxicity | Acute Tox. 1 or 2<br>Acute Tox. 1 or 2<br>Acute Tox. 1 or 2<br>Acute Tox. 3<br>Acute Tox. 3<br>Acute Tox. 3<br>Acute Tox. 4<br>Acute Tox. 4<br>Acute Tox. 4 | H300<br>H310<br>H330<br>H301<br>H311<br>H331<br>H302<br>H312<br>H332<br>*Exception: Products for professional use may be classified as H302.* |
| Specific target organ toxicity: single exposure and repeated exposure | STOT SE 1<br>STOT SE 2<br>STOT RE 1<br>STOT RE 2 | H370<br>H371<br>H372<br>H373 |
| Skin corrosion or irritation | Skin Corr. 1, 1B or 1C | H314<br>Exception: Products for professional use may be classified with<br>• *H314 Skin Corr. 1B or 1C.*<br>• *H314 Skin Corr. 1, if the classification concerns pH.* |
| Aspiration hazard | Asp. Tox. 1 | H304<br>*Exception: Products for professional use may be classified as H304.* |
| Respiratory or skin sensitising | Resp. Sens. 1, 1A or 1B<br>Skin sens. 1, 1A or 1B | H334<br>H317 |
| Explosive | | H240 |
| Extremely flammable | | H224 |
| Highly flammable | | H225<br>*Exception: Windscreen washer fluid may be classified as H225.* |

*Please note that the producer is responsible for the classification.*

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

✉ Safety data sheet for the product in line with prevailing European legislation (Annex II to REACH (Regulation 1907/2006/EEC)).

✉ Appendix 2 for the product or equivalent certification duly completed and signed.

✉ If an exception is made for H302 and / or H304: Confirmation that the product is intended for professional use.

✉ If an exception is made for H314: Documentation confirming that the classification relates to pH.

# 2 Requirements concerning ingoing substances

## O5 Classification of ingoing substances

The ingoing substances must not have a classification listed in Table 2.

Table 2 **Classification of ingoing substances**

| **CLP Regulation 1272/2008:** | | |
|---|---|---|
| **Hazard class** | **Code for hazard class and category** | **Hazard statement code** |
| Carcinogenicity* | Carc. 1A or 1B<br>Carc. 2 | H350<br>H351** |
| May cause genetic defects* | Muta. 1A or 1B<br>Muta. 2 | H340<br>H341 |
| Toxic for reproduction* | Repr. 1A or 1B<br>Repr. 2<br>Lact. | H360<br>H361<br>H362 |
| Respiratory or skin sensitising*** | Resp. Sens. 1, 1A or 1B<br>Skin sens. 1, 1A or 1B | H334<br>H317 |

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

*** Complexing agents of the MGDA and GLDA type may contain NTA impurities in the raw material in concentrations of less than 0.2%, if the concentration of NTA in the product is below 0.1%.*

**** Exemptions from the classification:*

- Products for professional use if the packaging is designed so that the user is at no risk of coming into contact with the product.
- Fragrances (see separate requirements in O9).
- Sensitising preservatives.

✉ Safety data sheet for each raw material in line with prevailing European legislation (Annex II to REACH (Regulation 1907/2006/EEC)).

✉ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

✉ For products for professional use that are exempted from H334 and/or H317: Documentation showing the packaging is designed so that the user is at no risk of coming into contact with the product.

## O6 Organic substances, degradability

All organic ingoing substances and their degradation products must be:

a) Aerobically biodegradable in accordance with test method no. 301 A–F, no. 310 in OECD guidelines for testing of chemicals or other scientifically accepted test methods if the test results are evaluated by an independent body and controlled by Nordic Ecolabelling.

b) Anaerobically biodegradable in accordance with ISO 11734, ECETOC no. 28, OECD 311 or other scientifically accepted test methods if the test results are evaluated by an independent body and controlled by Nordic Ecolabelling.

The following compounds are exempted from the degradability requirement:

- non-chlorinated polymers
- non-chlorinated natural and synthetic waxes*
- preservatives
- fragrances
- colourants in windscreen washer fluid
- colourants in professional products
- denaturing agents in ethanol
- iminodisuccinate (DID-no. 2555)
- rocin acid in tall oil**
- unsaponifiables in tall oil**
- hydrocarbons, C11-20***
- urea

** Note the definition of and ban on microplastics in requirement 07.*

*** The exception only applies to products for professional use for closed, automatic wash installations.*

**** The exception only applies to anaerobic degradability.*

*See also the exemption from the requirement for anaerobic degradability for substances that are not surfactants (Appendix 4, paragraph 7, Anaerobic degradability).*

✉ The aerobic and anaerobic biodegradability of all organic substances in the product with reference to the DID list, version 2016 or later. For substances not on the DID list, or where data on the DID list is missing, the associated documentation must be submitted. See Appendix 4 for test methods and analysis laboratories. If a substance is exempted from the degradability requirement, state which exception it falls under.

## O7 Substances prohibited from products

The following substances are prohibited from products:

- Colourants

  *Exception: Products for professional use and windscreen washer fluid may contain colourants.*

- Linear alkylbenzene sulphonates (LAS)
- Alkylphenol ethoxylates (APEO) and / or alkylphenol derivatives (APD)
- EDTA (ethylenediaminetetraacetic acid) and its salts and DTPA (diethylenetriamine pentaacetate)
- Quarternary ammonium salts that are not readily biodegradable
- Halogenated organic compounds and hypochlorites

  *Exception*:

  - *Acidic products (pH <6) may contain bronopol.*
  - *Neutral and basic products (pH ≥ 6) may contain bronopol if the content of free formaldehyde in the final product does not exceed 20 ppm (0.0020% by weight, 20 mg / kg) *. The free formaldehyde content must be measured in the final product. A calculation based on the content of free formaldehyde in each raw material can not be applied. The test laboratory must meet the requirements of Annex 4.*

- ** Measured with EPA 8315A, VdL-RL03, the Merckoquant method or other equivalent test method.*
- Benzalkonium chloride
- MG (methyldibromo glutaronitrile, CAS no. 35691-65-7)
- MI (methylisothiazolinone, CAS no. 2682-20-4)
- Nitro musks and polycyclic musk compounds
- Phthalates
- Halogenated and / or aromatic solvents

  *Exception: Solvents in cold degreasing, microemulsions and drying aids may contain ≤ 5000 ppm aromatic hydrocarbons as a result of the purification / refining process.*

- Fluorine surfactants and other per- and polyfluorinated compounds (PFC)
- BHT (butylated hydroxytoluene, CAS no. 128-37-0)

  *Exception: Fragrances may contain < 100 ppm BHT on condition that the level in the end product does not exceed 1 ppm.*

- HMDS (hexamethyldisiloxane, CAS no. 107-46-0)
- Microplastics

  *Nordic Ecolabelling has updated the definition of microplastics by adopting the EU definition in the REACH restriction on synthetic polymer microparticles, which entered into force on 17 October 2023. Either the new or old definition shall be used.*

*New definition: Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78: Synthetic polymer microparticles: polymers that are solid, and which fulfil both of the following conditions:*

*a) are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles.*

*b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions:*

*(i) all dimensions of the particles are equal to or less than 5 mm.*

*(ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.*

*The following polymers are excluded from this designation:*

*a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances.*

*b) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].*

*c) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006].*

*d) polymers that do not contain carbon atoms in their chemical structure.*

*N.B. The following "Conditions of restriction" paragraphs apply: 1 (concentration limit in mixtures), 2 (definitions), 3 (particle size limits). The remaining points do not apply, e.g. 4 (Paragraph 1 shall not apply to the placing on the market of:), e.g. 4(a) "synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites", 5 (derogations), e.g. 5 (b) "synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry".*

*Old definition: Microplastic means particles with a size of below 5 mm of insoluble macromolecular plastic, obtained through one of the following processes:*

*(a) a polymerisation process such as polyaddition or polycondensation or a similar process using monomers or other starting substances;*

*(b) chemical modification of natural or synthetic macromolecules;*

*(c) microbial fermentation.*

*Exception: Film-forming products are exempt from the ban on microplastics.*

- Endocrine disruptors according to the following:
    - Substances that are considered to be potential endocrine disruptors according to the EU commission's Endocrine Disruptor priority list, category 1 and 2, or future priority lists of the EU commission.

https://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, page 238 onwards)

- Substances that have been identified by the Danish Centre on Endocrine Disrupters (CeHoS) as fulfilling or likely fulfilling the WHO definition of an endocrine disruptor.

- http://www.cend.dk/files/DK_ED-list-final_2018.pdf (table 8 and 13), or later publications
  - Substances that have been identified as endocrine disruptors according to the scientific criteria in the Biocidal Products Regulation (EU 2017/2100) or Plant Protection Products Regulation (EU 2018/605), respectively.
  - Substances that have been identified as endocrine disruptors by ECHA's ED Expert Group: https://echa.europa.eu/fi/ed-assessment
- Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative), in accordance with the criteria in Annex XIII of REACH, plus substances that have not yet been investigated but that meet these criteria.
- Substances categorised as Substances of Very High Concern (SVHC) and included on the Candidate List: https://echa.europa.eu/candidate-list-table.
- *Exception: D4 (octamethylcyclotetrasiloxane, CAS no. 556-67-2), D5 (decamethylcyclopentasiloxane, CAS no. 541-02-6) and D6 (dodecamethylcyclohexasiloxane, CAS no. 540-97-6), see requirement O8.*
- Nanomaterials / particles

  *Nanomaterials / particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011, "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 are in the size range of 1–100 nm." Examples are ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.*

✉ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

✉ For neutral and basic products (pH ≥ 6) containing bronopol: Test report for the products according to EPA 8315A, VdL-RL03, the Merckoquant method or other equivalent test method that shows that the requirement is met.

## O8 Siloxanes

D4 (octamethylcyclotetrasiloxane, CAS no. 556-67-2), D5 (decamethylcyclopentasiloxane, CAS no. 541-02-6) and D6 (dodecamethylcyclohexasiloxane, CAS no. 540-97-6) may only be included as

residues from raw material production and are permitted in the Nordic Swan Ecolabelled product in concentrations <1000 ppm (<0.1000 w-%, <1000 mg / kg) per substance.

✉ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

## O9 Fragrances

Fragrances must not be present in consumer products* and professional pre-wash products.

*The requirement also includes fragrance substances in plant extracts.*

*Pre-wash products include alkaline degreasers, cold degreasers, microemulsions, insect removers and wheel rim cleaners.*

The following applies for other products for professional use:

a) Fragrances must be added in line with IFRA's guidelines.

*The guidelines of the International Fragrance Association (IFRA) can be found at www.ifraorg.org/*

b) Fragrance substances that are judged to be sensitising with hazard code H317 and/or H334 may only be present to a maximum of 0.0100% (100 ppm) per substance in the product**.

c) Fragrance substances that are subject to declaration according to EC No 648/2004 and subsequent amendments must not exceed 0.0100% (100 ppm) per substance in the product**.

d) Fragrance substances in Table 3 must not exceed 0.0100% (100 ppm) per substance in the product.

Table 3 **Other fragrance substances may be present to a maximum of 100 ppm**

| INCI name (or fragrance name in accordance with CosIng) | CAS no. |
|---|---|
| Cananga Odorata and Ylang-ylang oil | 83863-30-3; 8006-81-3 |
| Eugenia Caryophyllus Leaf / Flower oil | 8000-34-8 |
| Jasminum Grandiflorum / Officinale | 84776-64-7; 90045-94-6; 8022-96-6 |
| Myroxylon Pereirae | 8007-00-9; |
| Santalum Album | 84787-70-2; 8006-87-9 |
| Turpentine oil | 8006-64-2; 9005-90-7; 8052-14-0 |
| Verbena absolute | 02/12/8024 |
| Cinnamomum cassia leaf oil / Cinnamomum zeylanicum, ext. | 8007-80-5 / 84649-98-9 |

e) HICC, chloroatranol, atranol and Lilial are not permitted in the product.

* *Windscreen washer fluid may contain fragrances.*

** *Products for professional use are exempted from the requirement if the packaging is designed so that the user is at no risk of coming into contact with the product.*

✉ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

✉ Fragrance specifications.

✉ Calculation of the amount of substances classified as H334 and / or H317, the 26 allergens and substances listed in Table 3 that are present in the end product.

✉ For products for professional use that are exempted from requirements b) and c): Documentation showing the packaging is designed so that the user is at no risk of coming into contact with the product.

## O10 Phosphorus

Phosphates, phosphonates, phosphonic acid and phosphoric acid must not be present in products for boats and ships.

In other products, phosphates, phosphonates, phosphonic acid and phosphoric acid may not be present in quantities such that the total amount of phosphorus (P) exceeds 2.5 grams / litre of working solution. If the dosing is stated as an interval, the highest recommended dosage is to be used for the calculation.

Observe national legislation on phosphorus in the country in which the product is sold / marketed. In Norway, use of phosphorus is subject to the “Regulation limiting the use of chemicals and other products that are harmful to health and the environment (The Product Regulation)”, Sections 2-12. This means that the amount of phosphate in liquid cleaning agents must not exceed 0.2 wt% P.

✉ Calculation of the amount of phosphate, phosphonate, phosphonic acid and phosphoric acid (calculated as phosphorus (P)) in grams / litre of

working solution. Nordic Ecolabelling's calculation sheet may be used. It is available from Nordic Ecolabelling's websites.

✉ Documentation of the amount of phosphate (wt% P in the product) showing that the product to be sold on the Norwegian market complies with Norwegian legislation.

### O11 VOC (volatile organic compounds)

The product may only contain a limited amount of volatile organic compounds (VOC) that can contribute to the formation of photochemical smog, measured as POCP*.

a) The product's content of VOC must be calculated. If a product has a VOC content < 1.2%, the POCP calculation in requirement b) does not have to be performed, since the requirement will be met even in a worst-case scenario.

b) The maximum content of VOC that can contribute to the formation of photochemical smog in products is 12 g ethylene equivalents / kg product.

$$\frac{\sum m_1 \cdot POCP_1 + m_2 \cdot POCP_2 + ..}{m_{product}} \leq 12\ g\ C_2H_2\ equivalents\ /\ kg$$

$m_i$ = mass in grams of $VOC_i$ in the product

$POCP_i$ = $VOC_i$ substance's POCP factor in Appendix 5

$m_{product}$ = the product's mass in kg

** Windscreen washer fluid is exempted from this requirement.*

*Organic substances are defined as VOC if the vapour pressure is > 0.01 kPa at 20°C.*

*If information about the vapour pressure of an organic substance that has a boiling point of < 250°C at 101.3 kPa (1 atm) is not available, the organic substance is to be included in the POCP calculation.*

*POCP: Photochemical Ozone Creation Potential (photochemical ozone is a main ingoing of smog).*

*For solvents not included in Appendix 5, the calculation may be based on the POCP values derived from completed tests. Alternatively, the worst case for the VOC group in Appendix 5 may be used.*

✉ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

✉ Calculation of the product's VOC content.

✉ POCP calculation in line with the requirement. Nordic Ecolabelling's calculation sheet may be used. It is available from our websites.

## 3 Ecotoxicity and biodegradability

### O12 Long-term environmental effects

a) The use of ingoing substances which are classified* with any of the hazard codes H410, H411 or H412 is limited as follows:

$100*C_{H410} + 10*C_{H411} + C_{H412} < LV_{H410\,/\,H411\,/\,H412}$, where

$C_{H410}$ = Concentration of substances with H410 in grams / litre of working solution

$C_{H411}$ = Concentration of substances with H411 in grams / litre of working solution

$C_{H412}$ = Concentration of substances with H412 in grams / litre of working solution

$LV_{H410\,/\,H411\,/\,H412}$ = Limit value for ingoing substances which are classified with H410, H411 or H412 in grams / litre of working solution. Limit values per product type are given in Table 4.

Table 4 **$LV_{H410\,/\,H411\,/\,H412}$ in grams / litre of working solution per product type**

| Product type | $LV_{H410\,/\,H411\,/\,H412}$ |
|---|---|
| **Alkaline degreaser** | 1,5 |
| **Cold degreaser** | 1,5 |
| **Microemulsion (degreaser)** | 1,5 |
| **Shampoo** | 1,0 |
| **Drying aid** | 1,0 |
| **Wax** | 1,5 |
| **Wheel / rim cleaner** | 1,5 |
| **Insect cleaner** | 1,5 |
| **Other products** | 0,5 |

b) The use of ingoing substances which are classified* with hazard code H400 is limited as follows:

$C_{H400} < LV_{H400}$, where

$C_{H400}$ = Concentration of substances with H400 in grams / litre of working solution

$LV_{H400}$ = Limit value for ingoing substances which are classified with H400 in grams / litre of working solution. Limit values per product type are given in Table 5.

Table 5 **$LV_{H400}$ in grams / litre of working solution per product type**

| Product type | $LV_{H400}$ |
|---|---|
| **Alkaline degreaser** | 1,2 |
| **Cold degreaser** | 1,2 |
| **Microemulsion (degreaser)** | 1,2 |
| **Shampoo** | 0,8 |
| **Drying aid** | 0,8 |
| **Wax** | 1,2 |
| **Wheel / rim cleaner** | 1,2 |
| **Insect cleaner** | 1,2 |
| **Other products** | 0,4 |

*Surfactants classified as H411 and H412 are exempted from the requirement on the condition that they are readily biodegradable** and anaerobically biodegradable***.*

*If information about the substance being hazardous to the environment (in the form of data concerning toxicity and biodegradability, or toxicity and bioaccumulability) is not available, the substance is treated as a worst case, i.e. as environmentally hazardous, H410.*

** Note that in order to assess the classification, all the available data must have been evaluated, including data in ECHA databases.*

*** In accordance with the DID list, version 2016 or later. If the substance is not on the DID list, or data on the DID list is lacking, document in accordance with test method no. 301 A–F, no. 310 in OECD guidelines for testing of chemicals or other scientifically accepted test methods if the test results are evaluated by an independent body and controlled by Nordic Ecolabelling.*

**** In accordance with the DID list, version 2016 or later. If the substance is not on the DID list, or data on the DID list is lacking, document in accordance with ISO 11734, ECETOC no. 28, OECD 311 or other scientifically accepted test methods if the test results are evaluated by an independent body and controlled by Nordic Ecolabelling, where a minimum of 60% degradability under anaerobic conditions is achieved.*

✉ Summary of the product's content in % by weight of substances classified as H400, H410, H411 and H412.

✉ Appendix 2 for the product and Appendix 3 for all raw materials or equivalent certification duly completed and signed.

✉ Calculation to show that requirement a) is fulfilled. Nordic Ecolabelling's calculation sheet may be used. It is available from our websites.

✉ Report on surfactants that are to be exempted from the requirement (quantity, classification, biodegradability).

✉ Calculation to show that requirement b) is fulfilled. Nordic Ecolabelling's calculation sheet may be used. It is available from our websites.

## O13 CDV (product's critical dilution volume)

The product's critical dilution volume (CDV) must not exceed the maximum values stated in Table 6*.

Table 6 **Max values for $CDV_{chronic}$ / litre working solution per product type**

| Product type | Max value for $CDV_{chronic}$ / litre working solution |
|---|---|
| Alkaline degreaser | 100,000 |
| Cold degreaser | 175,000 |
| Microemulsion (degreaser) | 175,000 |
| Shampoo | 50,000 |
| Drying aid | 30,000 |
| Wax | 125,000 |
| Wheel / rim cleaner | 250,000 |
| Insect cleaner | 250,000 |
| Other products | 25,000 |

CDV is calculated using the following formula for all substances in the product:

$CDV_{chronic} = \sum CDV_i = \sum (dose_i \times DF_i \times 1000 / TF_{i\ chronic})$, where

$dose_i$ = The ingoing volume of each individual substance "i", in grams / litre of working solution

$DF_i$ = Biodegradation factor for substance "i", in accordance with the DID list

$TF_{i\ chronic}$ = Chronic toxicity factor for substance "i", in accordance with the DID list

If $TF_{i\ chronic}$ is lacking, $TF_{i\ acute}$ can be used.

CDV is calculated based on the highest stated working solution (grams / litre of working solution) on the label.

**Windscreen washer fluid is exempted from this requirement.*

*Reference to the DID list, version 2016 or later. For substances not on the DID list, the parameters must be calculated based on the guidance in part B of the DID list, and the related documentation must be submitted.*

✉ Calculation of CDVchronic for the product. Nordic Ecolabelling's calculation sheet may be used. It is available from our websites.

✉ Appendix 3 for all raw materials or equivalent certification duly completed and signed.

# 4 Requirements for windscreen washer fluid

The requirements in this section apply only to windscreen washer fluid.

## O14 Ethanol

**Concentrated windscreen washer fluid (<10 vol % water)**

a) The ethanol must be produced from renewable raw material.

*A renewable raw material is defined as a raw material originating from biological material which is renewed continuously in nature within the immediate future, such as cereals and wood (European standard EN 16575:2014).*

b) On an annual basis at least 10% must be produced from a residual product or waste in line with the Renewable Energy Directive (EU) 2018/2001 [1].

*Residue: a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it.*

*Agricultural, aquaculture, fisheries and forestry residues: residues that are directly generated by agriculture, aquaculture, fisheries and forestry and that do not include residues from related industries or processing.*

*Waste: waste in accordance with the definition in Article 3.1 of Directive 2008/98/EG, with the exception of substances that have been intentionally manipulated or contaminated to meet the definition. In*

[1] DIRECTIVE (EU) 2018 / 2001 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 on the promotion of the use of energy from renewable sources, Article 2, points 43 and 44.

*Article 3.1 of Directive 2008/98/EG, waste refers to: substance or object that the holder disposes of or intends or is obliged to dispose of.*

c) Ethanol that is produced from sugar cane is only accepted if the sugar cane is certified to Bonsucro standard (EU REDII approved) version 5.1, or ISCC PLUS version 3, or later versions.

*The requirement does not cover by-products, residues, and waste products from the sugar cane industry itself. The requirement also does not cover residues and waste products generated by households or commercial, industrial, or institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose.*

d) Ethanol that is produced from genetically modified organisms (GMOs), e.g. genetically modified maize, sugarcane, or sugar beet, is prohibited.

*Genetically modified organisms are defined in EU Directive 2001/18. Enzymes and other substances produced by the use of genetically modified microorganisms are not defined as GMOs or material derived from GMOs.*

### Pre-mixed windscreen washer fluid (>10 vol % water)

a) The ethanol must be produced from renewable raw material.

*A renewable raw material is defined as a raw material originating from biological material which is renewed continuously in nature within the immediate future, such as cereals and wood (European standard EN 16575:2014).*

b) On an annual basis at least 90% must be produced from a residual product in line with the Renewable Energy Directive (EU) 2018/2001 [2].

*Residue: a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it.*

*Agricultural, aquaculture, fisheries, and forestry residues: residues that are directly generated by agriculture, aquaculture, fisheries and forestry and that do not include residues from related industries or processing.*

c) Ethanol that is produced from sugar cane is only accepted if the sugar cane is certified to Bonsucro standard (EU REDII approved) version 5.1, or ISCC PLUS version 3, or later versions.

*The requirement does not cover by-products, residues, and waste products from the sugar cane industry itself. The requirement also does not cover residues and waste products generated by households or commercial, industrial, or institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose.*

[2] DIRECTIVE (EU) 2018 / 2001 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 on the promotion of the use of energy from renewable sources, Article 2, points 43 and 44.

d) Ethanol that is produced from genetically modified organisms (GMOs), e.g. genetically modified maize, sugarcane, or sugar beet, is prohibited.

*Genetically modified organisms are defined in EU Directive 2001/18. Enzymes and other substances produced by the use of genetically modified microorganisms are not defined as GMOs or material derived from GMOs.*

✉ Declaration of the type of renewable raw material used.

✉ Documentation showing that the residual product meets the definition in the Renewable Energy Directive (EU) 2018/2001.

✉ Calculation to show the proportion of ethanol produced from a residual product on an annual basis.

✉ If ethanol that is produced from sugar cane is used:

- Valid Bonsucro EU-RED Chain of Custody certificate from the supplier/or link to valid certificate on Bonsucro certificate database covering all sugar cane used in ethanol in the Nordic Swan Ecolabelled windscreen washer fluid, or
- Valid ISCC certificate from the supplier of the ethanol and Sustainability Declaration(s) demonstrating that the ethanol purchased and used in the production of the in the Nordic Swan Ecolabelled windscreen washer fluid is supplied as ISCC-certified material.

✉ If ethanol that is produced from sugar cane is used: Documentation showing that the quantity of Bonsucro EU-RED or ISCC PLUS certified sugar cane is met. This should be specified in e.g. invoices or delivery notes according to ISCC or Bonsucro EU-RED requirements for Chain of Custody.

✉ Appendix 6 or equivalent certification duly completed and signed.

## O15 Performance and frost protection

The product must perform at least as effectively as equivalent products on the market. The product's performance must be documented with a user test as set out in Appendices 7 and 8.

The product's frost protection is to be documented in accordance with standard ASTM D1177-17 "Standard Test Method for Freezing Point of Aqueous Engine Coolants", ASTM D2386-19 "Standard Test Method for Freezing Point of Aviation Fuels" or equivalent.

✉ User test in line with Appendices 7 and 8.

✉ Test report in accordance with standard ASTM D1177-17 "Standard Test Method for Freezing Point of Aqueous Engine Coolants", ASTM D2386-19 "Standard Test Method for Freezing Point of Aviation Fuels" or equivalent.

# 5 Packaging and user information

This chapter contains requirements concerning plastic packaging and user information. If the product is packaged in a material other than plastic, please contact Nordic Ecolabelling to establish requirements.

## O16 A - Recycling design of plastic packaging and closures

Plastic packaging smaller than 200 litres and associated closures must have a design that facilitates material recovery*.

*Packaging refers to bottles, cans, pots or similar.*

*Closure refers to caps, lids, oblates, seals, and integral dosing devices / pumps.*

- Packaging and closures must be made from either PE (polyethylene), PP (polypropylene) or PET (polyethylene terephthalate).

  *Exception: Spray triggers may contain the following plastics in small technical details: Polyoxymethylene (POM), expanded polyethylene (EPE), ethylene butyl acrylate copolymer (EBA), synthetic rubber copolymer of acrylonitrile and butadiene (NBR), and up to 6% Ethylene vinyl acetate (EVA).*

- Oblate and seals must be made of PE (polyethylene), PP (polypropylene), PET (polyethylene terephthalate), aluminium, paper or EPE (expanded polyethylene). They must be separable from packaging or cap / lid.

- It is not allowed to add pigments to PET used for packaging.

  *Exception:*

  - Recycled PET-granulate where the pigment originates from the recycled material.
  - *Pigments that are added to UV blockers and that do not make up more than 10 ppm of the packaging (without closure).*

- Packaging and closures must not be dyed with carbon black.

  *Exception: Small amounts of carbon black used in other colours than black if it can be documented that the NIR sensor reads and sorts the packaging or the closure to the correct plastic fraction.*

- Silicone must not be used in closures.

  *Exception: Lubricant in spray bottle triggers.*

- Barriers are not permitted in packaging.

- Fillers such as $CaCO_3$ must not be added to PE and PP packaging and closures to a level that takes the density of the plastic beyond 0.995 g / $cm^3$.

- There must be no metal components in packaging or closures.

  *Exception:*

  - *Metal springs in pump bottles.*
  - *Metal in technical parts in trigger for spray bottles for cold degreasing products.*

** If the product is packaged in a material other than plastic, please contact Nordic Ecolabelling to establish requirements.*

☒ Packaging specification (including bottle / can / pot or similar, labels and closure) or certification showing which plastic has been used and the colour of the packaging and closure.

☒ Appendix 9 or equivalent certification duly and signed.

☒ Documentation showing that the NIR sensor reads and sorts the packaging or closure to the correct plastic fraction if small amounts of carbon black have been used in other colours than black.

☒ Calculation showing that the density limit has not been exceeded.

### O16 B - Labels for rigid plastic packaging: Design for recycling

*Label means "traditional label", shrink film label/sleeve, direct print etc.*

- For containers in polyethene (PE) and polypropene (PP): The following label materials are permitted:
  - Polyolefin plastic labels (PE and PP) as well as PET or PET-G labels with density > 1.0 g/cm$^3$. For labels of different material than the packaging, the suitability must be substantiated in accordance with Recyclass' Recyclability Evaluation Protocol for labels and adhesives on HDPE containers, version 1.0[3].
  - Paper labels without fibre loss. The suitability must be substantiated in accordance with Recyclass' Washing quick test procedure: For paper labels applied on HDPE & PP containers, standard laboratory practice, version 1.0[4].
- Containers in polyethylene terephthalate (PET) must have a label of a different plastic material, with a density < 1.0 g/cm$^3$, or a paper label without fibre loss.
  - Paper labels without fibre loss: The suitability must be substantiated in accordance with Recyclass' Washing quick test procedure: For paper labels applied on HDPE & PP containers, standard laboratory practice, version 1.0[5].

*Note: PET-G is not allowed in labels on PET containers. For the time being, cPET labels are also not permitted. Nordic Ecolabelling will consider allowing cPET-labels with the appropriate specifications, if cPET labels become endorsed by EPBP (The European PET Bottle Platform) for PET bottles and/or by RecyClass (www.recyclass.eu).*

- Polystyrene (PS), polyvinyl chloride (PVC) and other halogenated plastics must not be used in labels.
- Metallized labels/shrink film labels are not permitted.
- For labels of different material than the packaging: Labels must not cover more than 60% of the container. The calculation of the percentage shall be based on the two-dimensional profile of the container i.e., the area of the top and bottom of the packaging and the sides of a box/

[3] https://recyclass.eu/wp-content/uploads/2024/07/REP-HDPE-02.pdf (Accessed on 2024-12-19)
[4] https://recyclass.eu/wp-content/uploads/2021/10/RecyClass-Washing-QT-Procedure-for-Paper-Labels-applied-on-HDPE-and-PP-Containers_FINAL.pdf (Accessed on 2021-11-19)
[5] https://recyclass.eu/wp-content/uploads/2021/10/RecyClass-Washing-QT-Procedure-for-Paper-Labels-applied-on-HDPE-and-PP-Containers_FINAL.pdf (Accessed on 2021-11-19)

container/bottle/can shall not be included in the calculation. If the label on the front of pack and back of pack are of different size, the maximum percentage of 60% shall be fulfilled for each side separately. For a cylindrical bottle, the calculation can also be based on the three-dimensional profile exclusive bottom and top of the bottle.

- Direct print on the container is not permitted except for date codes, batch codes and UFI (Unique Formula Identifier).

*Please note: Nordic Ecolabelling conducted a project on labels in 2020 and concluded that requirements on labels should be included in the criteria. This requirement was introduced in 2021. More information can be found in the background document under section "The label project and 16B" under the argumentation regarding requirement O16. During 2024, RecyClass replaced the Washing quick test procedure for film labels applied on HDPE & PP containers with Recyclability Evaluation Protocol for labels and adhesives on HDPE containers. A corresponding evaluation protocol for PP is expected to be published in 2025, whereby the criteria will be updated with a reference to this protocol.*

*In the next revision of the label requirement, it is expected that PE and PP packaging must have a label made of the same material, and that paper labels will no longer be permitted.*

✉ Label specifications showing the material used and density. Appendix 9 can be used as part of the documentation.

✉ If plastic labels of different material than the container is used on PE or PP containers. Test report from a laboratory fulfilling the conditions in Appendix 4, showing that the label is approved.

✉ If paper labels are used: Test report from a laboratory fulfilling the conditions in Appendix 4, showing that the label is approved.

✉ Declarations that PS, PVC and other halogenated plastics, aluminium and other metals have not been used. Appendix 9 can be used.

✉ For labels of different material than the packaging: Calculation of label size compared to the surface of the container.

✉ Declaration from the applicant that direct print is not used except for date codes, batch codes and UFI. Appendix 2 can be used.

### O17 Recycling design of flexible bags / pouches

Pouches must have a design that facilitates material recovery.

*Packaging means flexible bags / pouches.*

*Closure means caps and lids.*

- Packaging and closures must be made from either PE (polyethylene), PP (polypropylene) or PET (polyethylene terephthalate).
- The packaging must be made of monomaterial, i.e. not laminated with layers of different materials. Barrier coatings must only use EVOH (ethylene vinyl alcohol) and make up max 5% of the total weight.
- Packaging and closures must not be dyed with carbon black.

*Exception:*

- *Small amounts of carbon black used in other colours than black if it can be documented that the NIR sensor reads and sorts the packaging or the closure to the correct plastic fraction.*
- *Text and pictograms.*

- Silicone must not be used in closures.
- Fillers such as $CaCO_3$ must not be added to PE and PP packaging or closures to a level that takes the density of the plastic beyond 0.995 g/cm$^3$.
- PS, (polystyrene), PET (polyethylene terephthalate), PVC (polyvinyl chloride) and other halogenated plastics may not be used in labels.

✉ Packaging specification (including pouch, any labels and closure) or certification showing which plastic has been used and the colour of the packaging and closure.

✉ Appendix 9 or equivalent certification duly and signed.

✉ Documentation showing that the NIR sensor reads and sorts the packaging or closure to the correct plastic fraction if small amounts of carbon black have been used in other colours than black.

✉ Calculation showing that the density limit has not been exceeded.

## O18 Packaging for spray products

a) Sprays that contain propellants are not allowed.

b) Spray products for interior cleaning must have a permanent aerosol-reducing nozzle (foaming nozzle).

*Alternatively, spray products must have some other aerosol-reducing system, such as an aerosol-reducing formulation that gives a viscous product. This alternative is acceptable if a test is carried out showing that the amount of inhalable, thoracic and respirable aerosol is at least as low for the test product in its ordinary packaging as it is for a reference product with a foaming nozzle. The reference product must be a Nordic Swan Ecolabelled product with a foaming nozzle.*

*The chemical composition and physical properties of the reference product must be equivalent to the product being tested. This test is to be carried out in line with the "determination of inhalable, thoracic and respirable aerosol fractions", as described in Olsen et al. (2017)[6]. The test is to be performed in a laboratory that is competent and independent. It must meet the general requirements of standard EN ISO 17025 or have official GLP laboratory status.*

✉ Documentation showing that no propellant is used, for example a description of the packaging.

[6] Rengjøringsmidler i sprayform – Frigir de helseskadelige stoffer til arbeidsatmosfæren som kan inhaleres til lungene? Olsen, R., et al. (2017). STAMI report No. 2. ISSN no. 1502-0932.

✉ Certification / documentation from the manufacturer of the trigger / spray bottle showing that it has a permanent foaming nozzle.

✉ Description of the alternative aerosol-reducing system and test report on the comparison between the test and reference products.

✉ Documentation showing that the test was performed at a laboratory that is competent and independent – and that meets the general requirements of standard EN ISO 17025 or has official GLP laboratory status.

### O19 User information

The product's label must include the information below. In the case of products for professional use, the information may be provided on an accompanying product sheet.

- The product's area of use.
- Dosing instructions for products that need to be diluted before use.
- Freezing point at the recommended dosing for windscreen washer fluid.
- How the packaging should be sorted / recycled in each Nordic country in which it is sold. Text or symbols may be used.
- For consumer products: Encouragement to wash in a place where the water drains into a sewerage system connected to a water treatment plant. Suggested text: *To protect the environment when washing – choose a place where the water drains into a sewerage system connected to a water treatment plant.*
- *Windscreen washer fluids are exempted.*

✉ Copy of label and / or product sheet.

# 6 Performance

Windscreen washer fluid is not subject to requirement O20.

### O20 Performance

The product must perform at least as effectively as equivalent products on the market. The product's performance must be documented as stated below:

- In the case of consumer cleaning products, their performance must be documented with a function test as set out in Appendix 10.
- With cleaning products for professional use, performance is to be documented with either:

a) a function test in line with Appendix 10 or

b) a user test in line with Appendices 11 and 12.

- The performance of polishing products for manual use is to be documented in line with standard ASTM D4955-89 "Standard Practice for Field Evaluation of Automotive Polish".
- The performance of polishing products for non-manual use is to be documented with either:

a) a function test in line with Appendix 10 or

b) a user test in line with Appendices 11 and 12.

- For drying aids, rinsing aids, spray waxes and combi waxes that form part of a system together with other Nordic Swan Ecolabelled cleaning or polishing products for automated wash installations, performance is to be documented with either:

  a) a function test in line with Appendix 10 or

  b) a user test in line with Appendices 11 and 12.

✉ For consumer cleaning products: Function test in line with Appendix 10.

✉ For cleaning products for professional use: Function test in accordance with Appendix 10 or user test in accordance with Appendices 11 and 12.

✉ For polishing products for manual use: Test report in line with the standard ASTM D4955-89 “Standard Practice for Field Evaluation of Automotive Polish”.

✉ For polishing products for non-manual use: Function test in accordance with Appendix 10 or user test in accordance with Appendices 11 and 12.

✉ For drying aids, rinsing aids, spray waxes and combi waxes that form part of a system together with other Nordic Swan Ecolabelled cleaning or polishing products for automated wash installations: Function test in accordance with Appendix 10 or user test in accordance with Appendices 11 and 12.

# 7 Quality and regulatory requirements

Quality and regulatory requirements are general requirements that are always included in Nordic Ecolabelling’s product criteria. The purpose of these is to ensure that fundamental quality assurance and applicable environmental requirements from the authorities are dealt with appropriately. They also ensure compliance with Nordic Ecolabelling’s requirements for the product throughout the period of validity of the licence.

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

## O21 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.

## O22 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.

### O23 Quality of the care product for vehicles

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.

### O24 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.

### O25 Unplanned nonconformities

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

✉ Procedures detailing how unplanned nonconformities are handled.

### O26 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled care product for vehicles along the production chain. A manufactured / sold product should be traceable back to the occasion (time and date) and location (specific factory) of its production and, in relevant cases, also the machine / production line on which it was produced. In addition, it should be possible to connect the product with the actual raw material used.

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

### O27 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.svanen.se/regulations/ or at www.nordic-swan-ecolabel.org/regulations/

# Follow-up inspections

Nordic Ecolabelling may decide to check whether the product fulfils the Nordic Swan 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.

# Criteria version history

Nordic Ecolabelling adopted version 6.0 of the criteria for care products for vehicles on 31 August 2020. The criteria are valid until 30 June 2025.

On 15 September 2020 Nordic Ecolabelling decided to adjust requirement O16 so oblate and seals also can me made of aluminium and paper if they are separable from packaging or cap / lid. The new version is called 6.1.

On 20 October 2020 Nordic Ecolabelling decided to adjust requirement O7 by removing the ban on substances in Annex XVII of REACH (list of restrictions). The new version is called 6.2.

On 16 February 2021 Nordic Ecolabelling decided to adjust requirement O4 so that products for professional use can be classified with H314 Skin Corr. 1B or 1C. The new version is called 6.3.

On 23 March 2021 Nordic Ecolabelling decided to make the following adjustments:

- Requirement O16 only applies to plastic packaging smaller than 200 liters.
- Requirement O18b only applies to spray products for interior cleaning.

Furthermore, Nordic Ecolabelling decided on 14 April 2021 to adjust requirement O16 so that the performance for polishing products for non-manual use and drying aids, rinsing aids, spray waxes and combi waxes that form part of a system together with other Nordic Swan Ecolabelled cleaning or polishing products for automated wash installations also can be documented with a function test. The new version is called 6.4.

On 4 May 2021 Nordic Ecolabelling decided to make the following adjustments of requirement O16:

- Pigments that are added to UV blockers and that do not make up more than 10 ppm of the packaging (without closure) are exempted from the ban on pigments in PET.
- Lubricant in spray bottle triggers is exempt from the ban on silicone in closures. The new version is called 6.5.

On 1 June 2021 Nordic Ecolabelling decided to make the following adjustments:

- Solvents in cold degreasing products may contain ≤ 5000 ppm aromatic hydrocarbons as a result of the purification / refining process.
- Spray triggers may contain the following plastics in small technical details: Polyoxymethylene (POM), expanded polyethylene (EPE), ethylene butyl acrylate copolymer (EBA), synthetic rubber copolymer of acrylonitrile and butadiene (NBR).

The new version is called 6.6.

On 5 October 2021 Nordic Ecolabelling decided to add iminodisuccinate and rosin acid and unsaponifiables in tall oil to the list of compounds exempted from the degradability requirement (O6). The new version is called 6.7.

On 22 March 2022 Nordic Ecolabelling decided to make the following adjustments:

- Hydrocarbons, C11-20, are exempt from anaerobic degradability requirements (requirement O6).
- Solvents in cold degreasing, microemulsions and drying aids products may contain ≤ 5000 ppm aromatic hydrocarbons as a result of the purification / refining process.
- Neutral and basic products (pH ≥ 6) may contain bronopol if the content of free formaldehyde in the final product does not exceed 20 ppm (0.0020% by weight, 20 mg / kg).

- For UVCB substances with limited water-soluble components EL50/LL50 values can be used instead of EC50/LC50 values.

The new version is called 6.8.

On 29 March 2022 Nordic Ecolabelling decided to adjust requirement O12 by also exempting H411 classified surfactants from the requirement. On 19 April 2022 Nordic Ecolabelling decided to exempt metal in technical parts in triggers for spray bottles for cold degreasing products from the ban on metal in requirement O16. On 10 May 2022 Nordic Ecolabelling decided to include products for motorcycles, bicycles and equivalent in the product group definition. The new version is called 6.9.

On 9 August 2022 Nordic Ecolabelling decided to allow ethanol that is produced from sugar cane that is certified to Bonsucro standard (EU REDll approved), version 5.1 or later version. The new version is called 6.10.

On September 21, 2022, Nordic Ecolabelling decided to exempt film-forming products from the ban on microplastics until ECHA's restriction proposal and its definition are established. The exception applies at least until 31/12/2023. On 4 October 2022, Nordic Ecolabelling decided to allow oblate and seals in expanded polyethylene (EPE). The new version is called 6.11.

Nordic Ecolabelling has also, as announced in O16 on publication, carried out a label project to investigate how label requirements can be implemented in the criteria. The new label requirement called "O16 - B Labels for rigid plastic packaging: Design for recycling" is now included in the criteria with a transition period until 31/12/2023.

On 1 November, 2022 Nordic Ecolabelling decided to increase the percentage of allowed EVOH in flexible plastic pouches from 2 to 5. The new version is called 3.3.

On 21 February, 2023 Nordic Ecolabelling decided to lower the percentage of ethanol produced from a residual product according to the Renewable Energy Directive (EU) 2018/2001 to 10% for concentrated windscreen washer fluid. The new version is called 6.13.

Nordic Ecolabelling decided on 14 November 2023 to extend the validity period for the criteria until 30 June 2027. At the same time, the product group definition was adjusted, which means that products for washing planes are also included. In addition, the transition period for label requirements ("O16 - B Labels for rigid plastic packaging: Design for recycling") has been extended to 31 December 2024. The new version is called 6.14.

Nordic Ecolabelling decided on 19 December 2023 that ethanol produced from waste can also be included in windscreen washer fluid. The new version is called 6.15.

Due to the update of CLP, products classified H314, if the classification depends on pH, no longer need to be categorized according to 1A, 1B and 1C. Therefore, Nordic Ecolabelling decided on 13 August 2024 to adapt requirement O4 based on this. The new version is called 6.16.

On 13 August 2024, Nordic Ecolabelling decided to allow the IFS standard Household and Personal Care as an alternative to ISO 9001 (Appendix 4). The new version is called 6.17.

On 25 November 2025, Nordic Ecolabelling decided to exempt urea from the degradability requirement O6. The new version is called 6.18.

Nordic Ecolabelling decided on 20 January 2026 to prolong the validity of the criteria to the 29 February 2028. The new version is called 6.19.

On 3 November 2026, Nordic Ecolabelling decided to accept ethanol produced from sugarcane certified to ISCC PLUS v.3 or later version in windshield washer fluid. The new version is called 6.20.

# New criteria

In the next revision of the criteria, the following shall be considered:

- Requirements for products that form micro emulsions regarding the effect of oil separators. Limit values for substances that are not aerobically and / or anaerobically degradable (aNBO and anNBO).

# Appendix 1 Description of the product

The declaration relates to the following product / product system:

| |
|---|
| Product name |
| Product system |
| Manufacturer |
| Supplier / importer |

The product's area of use:

☐ Cars

☐ Buses

☐ Trucks

☐ Boats

☐ Ships

☐ Motorcycles, bicycles and equivalent

☐ Trains and other rail transport

☐ Planes

The product is intended for:

☐ Consumers

☐ Professional users

☐ Manual washing

☐ Automated wash installations

Is the product part of a system, together with other Nordic Swan Ecolabelled cleaning and / or polishing products for automated wash installations?

☐ Yes ☐ No

The product's dosing, stated as grams / litre of working solution:

_____

State how this value was arrived at, based on the recommended dosing on the label / product sheet:

_____

_____

_____

| | |
|---|---|
| Place and date | Company name / stamp |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 2 Declaration from the manufacturer of the product

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of care products for vehicles. To complete the following declaration, you will need declarations for all raw materials (Appendix 3 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: _____

*The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled care products for vehicles. Impurities are not regarded as ingoing substances and are exempt from the requirements.*

*Ingoing substances and impurities are defined below, unless stated otherwise in the requirements*

- *Ingoing substances: all substances in the Nordic Swan Ecolabelled product, 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, incl. production of raw materials that remain in the raw material / ingredient and / or in the in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w-%, 100 mg / kg) in the Nordic Swan Ecolabelled product.*
- *Impurities in the raw materials exceeding concentrations of 1,0 % are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.*

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

| **O4: Classification of the product** | | |
|---|---|---|
| Is the product classified with any of the hazard phrases below?<br>Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i. | | |
| H400 – Toxic to aquatic life, hazard category 1 | Yes ☐ | No ☐ |
| H410 – Toxic to aquatic life | Yes ☐ | No ☐ |
| H411 – Toxic to aquatic life | Yes ☐ | No ☐ |
| H412 – Toxic to aquatic life | Yes ☐ | No ☐ |
| H413 – Toxic to aquatic life | Yes ☐ | No ☐ |
| H420 – Hazardous to the ozone layer | Yes ☐ | No ☐ |
| H350 – May cause cancer, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H351 – Suspected of causing cancer, hazard category 2 | Yes ☐ | No ☐ |
| H340 – May cause genetic defects, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H341 – May cause genetic defects, hazard category 2 | Yes ☐ | No ☐ |
| H360 – Toxic for reproduction, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H361 – Toxic for reproduction, hazard category 2 | Yes ☐ | No ☐ |
| H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category) | Yes ☐ | No ☐ |
| H300 – Acute toxicity | Yes ☐ | No ☐ |
| H310 – Acute toxicity | Yes ☐ | No ☐ |
| H330 – Acute toxicity | Yes ☐ | No ☐ |
| H301 – Acute toxicity | Yes ☐ | No ☐ |
| H311 – Acute toxicity | Yes ☐ | No ☐ |
| H331 – Acute toxicity | Yes ☐ | No ☐ |
| H302 – Acute toxicity | Yes ☐ | No ☐ |
| H312 – Acute toxicity | Yes ☐ | No ☐ |
| H332 – Acute toxicity | Yes ☐ | No ☐ |
| H370 – Specific target organ toxicity: single exposure and repeated exposure | Yes ☐ | No ☐ |
| H371 – Specific target organ toxicity: single exposure and repeated exposure | Yes ☐ | No ☐ |
| H372 – Specific target organ toxicity: single exposure and repeated exposure | Yes ☐ | No ☐ |
| H373 – Specific target organ toxicity: single exposure and repeated exposure | Yes ☐ | No ☐ |
| H314 – Skin corrosion or irritation | Yes ☐ | No ☐ |
| H304 – Aspiration hazard | Yes ☐ | No ☐ |
| H334 – Respiratory or skin sensitising | Yes ☐ | No ☐ |
| H317 – Respiratory or skin sensitising | Yes ☐ | No ☐ |
| H240 – Explosive | Yes ☐ | No ☐ |
| H224 – Extremely flammable | Yes ☐ | No ☐ |
| H225 – Highly flammable | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| O5: Classification of ingoing substances | | |
|---|---|---|
| Does the product contain substances classified with any of the hazard phrases below?<br>Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i. | | |
| H350 – May cause cancer, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H351 – Suspected of causing cancer, hazard category 2 | Yes ☐ | No ☐ |
| H340 – May cause genetic defects, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H341 – May cause genetic defects, hazard category 2 | Yes ☐ | No ☐ |
| H360 – Toxic for reproduction, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H361 – Toxic for reproduction, hazard category 2 | Yes ☐ | No ☐ |
| H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category) | Yes ☐ | No ☐ |
| H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B | Yes ☐ | No ☐ |
| H317 – Skin sensitising category 1 / 1A / 1B | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| O6: Organic substances, degradability | | |
|---|---|---|
| Are all organic substances in the product aerobically biodegradable in accordance with test method no. 301 A–F, no. 310 in OECD guidelines for testing of chemicals or equivalent test methods? | Yes ☐ | No ☐ |
| Are all organic substances in the product anaerobically biodegradable in accordance with ISO 11734, ECETOC no. 28, OECD 311 or equivalent test methods? | Yes ☐ | No ☐ |
| **If no to any of the above questions, please indicate if the substance is one of the following:** | | |
| Non-chlorinated polymers | Yes ☐ | No ☐ |
| Non-chlorinated natural and synthetic waxes | Yes ☐ | No ☐ |
| Preservatives | Yes ☐ | No ☐ |
| Fragrances | Yes ☐ | No ☐ |
| Colourants in windscreen washer fluid | Yes ☐ | No ☐ |
| Colourants in professional products | Yes ☐ | No ☐ |
| Denaturing agents in ethanol | Yes ☐ | No ☐ |
| Iminodisuccinate (DID-no. 2555) | Yes ☐ | No ☐ |

| | | |
|---|---|---|
| Rocin acid in tall oil | Yes ☐ | No ☐ |
| Unsaponifiables in tall oil | Yes ☐ | No ☐ |
| Hydrocarbons, C11-20 | Yes ☐ | No ☐ |
| Urea | Yes ☐ | No ☐ |
| Other, explain | Yes ☐ | No ☐ |

State the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O7: Substances prohibited from products** | | |
|---|---|---|
| Does the product contain any of the following substances? | | |
| Colourants | Yes ☐ | No ☐ |
| Linear alkylbenzene sulphonates (LAS) | Yes ☐ | No ☐ |
| Alkylphenol ethoxylates (APEO) and / or alkylphenol derivatives (APD) | Yes ☐ | No ☐ |
| EDTA (ethylenediaminetetraacetic acid) and its salts and DTPA (diethylenetriamine pentaacetate) | Yes ☐ | No ☐ |
| Quarternary ammonium salts that are not readily biodegradable | Yes ☐ | No ☐ |
| Organic chlorine compounds and hypochlorites | Yes ☐ | No ☐ |
| Benzalkonium chloride | Yes ☐ | No ☐ |
| MG (methyldibromo glutaronitrile acid, CAS no. 35691-65-7) | Yes ☐ | No ☐ |
| MI (methylisothiazolinone acid, CAS no. 2682-20-4) | Yes ☐ | No ☐ |
| Nitro musks and polycyclic musk compounds | Yes ☐ | No ☐ |
| Phthalates | Yes ☐ | No ☐ |
| Halogenated and / or aromatic solvents | Yes ☐ | No ☐ |
| Fluorine surfactants and other per- and polyfluorinated compounds (PFAS) | Yes ☐ | No ☐ |
| BHT (butylated hydroxytoluene, CAS no. 128-37-0) | Yes ☐ | No ☐ |
| HMDS (hexamethyldisiloxane, CAS no. 107-46-0) | Yes ☐ | No ☐ |
| Microplastics, according to either the new* or the old** definition (you are only required to answer for one of the two definitions):<br><br>According to the new definition:<br><br>According to the old definition: | <br><br>Yes ☐<br><br>Yes ☐ | <br><br>No ☐<br><br>No ☐ |

| | | |
|---|---|---|
| ***New definition:** Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78:<br>Synthetic polymer microparticles: polymers that are solid, and which fulfil both of the following conditions:<br>a) are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles.<br>b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions:<br>(i) all dimensions of the particles are equal to or less than 5 mm.<br>(ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.<br>The following polymers are excluded from this designation:<br>a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances.<br>b) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].<br>c) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006].<br>d) polymers that do not contain carbon atoms in their chemical structure.<br>N.B. The following "Conditions of restriction" paragraphs apply: 1 (concentration limit in mixtures), 2 (definitions), 3 (particle size limits). The remaining points do not apply, e.g. 4 (Paragraph 1 shall not apply to the placing on the market of:), e.g. 4(a) “synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites”, 5 (derogations), e.g. 5 (b) "synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry".<br><br>****Old definition:** Microplastic means particles with a size of below 5 mm of insoluble macromolecular plastic, obtained through one of the following processes: (<br>a) a polymerisation process such as polyaddition or polycondensation or a similar process using monomers or other starting substances;<br>(b) chemical modification of natural or synthetic macromolecules;<br>(c) microbial fermentation. | | |
| Endocrine disruptors in line with the following:<br>Substances considered to be potential endocrine disruptors according to the European Commission’s Endocrine Disruptor priority list, category 1 and 2, or future priority lists from the European Commission. https://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, page 238 onwards)<br>Substances that have been identified as meeting or potentially meeting WHO’s definition of an endocrine disruptor by the Danish Centre on Endocrine Disruptors (CeHoS). http://www.cend.dk/files/DK_ED-list-final_2018.pdf (Tables 8 and 13), or later publications.<br>Substances identified as hormone disruptors according to the scientific criteria in the Biocidal Products Regulation (EU 2017/2100) or the Plant Protection Products Regulation (EU 2018/605).<br>Substances identified as endocrine disruptors by ECHA’s ED Expert Group: https://echa.europa.eu/fi/ed-assessment | Yes ☐ | No ☐ |
| Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative), in accordance with the criteria in Annex XIII of REACH, plus substances that have not yet been investigated but that meet these criteria. | Yes ☐ | No ☐ |
| Substances categorised as Substances of Very High Concern (SVHC) and included on the Candidate List: https://echa.europa.eu/candidate-list-table. | Yes ☐ | No ☐ |
| Nanomaterials / particles<br>*Nanomaterials / particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011, “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 are in the size range of 1–100 nm.” Examples are ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.* | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O8: Siloxanes** | | |
|---|---|---|
| Does the product contain any of the following substances? | | |
| D4 (octamethylcyclotetrasiloxane, CAS no. 556-67-2) | Yes ☐ | No ☐ |
| D5 (decamethylcyclopentasiloxane, CAS no. 541-02-6) | Yes ☐ | No ☐ |
| D6 (dodecamethylcyclohexasiloxane, CAS no. 540-97-6) | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O9: Fragrances** | | |
|---|---|---|
| Does the product contain fragrances (including fragrance substances in plant extracts)? | Yes ☐ | No ☐ |
| If yes, have fragrances been added in line with IFRA guidelines?<br>The guidelines of the International Fragrance Association (IFRA) can be found at www.ifraorg.org/ | Yes ☐ | No ☐ |
| If yes, are any of the fragrances judged to be sensitising with hazard code H317 and / or H334? | Yes ☐ | No ☐ |
| If yes, does the product include any fragrance substances that are subject to declaration? | Yes ☐ | No ☐ |
| If yes, are any of the fragrances present listed in the table below? | Yes ☐ | No ☐ |

| **INCI name (or fragrance name in accordance with CosIng)** | **CAS no.** |
|---|---|
| Cananga Odorata and Ylang-ylang oil | 83863-30-3;<br>8006-81-3 |
| Eugenia Caryophyllus Leaf / Flower oil | 8000-34-8 |
| Jasminum Grandiflorum / Officinale | 84776-64-7;<br>90045-94-6;<br>8022-96-6 |
| Myroxylon Pereirae | 8007-00-9; |
| Santalum Album | 84787-70-2;<br>8006-87-9 |
| Turpentine oil | 8006-64-2;<br>9005-90-7;<br>8052-14-0 |
| Verbena absolute | 02/12/8024 |
| Cinnamomum cassia leaf oil / Cinnamomum zeylanicum, ext. | 8007-80-5 /<br>84649-98-9 |

| | | |
|---|---|---|
| If yes, is HICC, chloroatranol, atranol or Lilial present? | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O11: VOC** | | |
|---|---|---|
| Does the product contain VOC?<br>*Organic substances are defined as VOC if the vapour pressure is > 0.01 kPa at 20°C.* | Yes ☐ | No ☐ |

If the answer to the above question is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

For determination of POCP value: Indicate which solvent (eg Acetone) or type of solvent category (eg Ketones) the VOC compounds belong to according to Appendix 5.

_____

_____

_____

_____

| **O12: Long-term environmental effects** | | |
|---|---|---|
| Does the product contain any substances classified as harmful to the environment with the risk code H400, H410, H411 or H412?<br>Note that in order to assess the classification, all the available data must have been evaluated, including data in ECHA databases. | Yes ☐ | No ☐ |

If the answer to the above question is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O14: Ethanol** | | |
|---|---|---|
| For **concentrated** windscreen washer fluid: Are at least 50% of the ethanol (on an annual basis) produced from a residual product in line with the Renewable Energy Directive (EU) 2018/2001? | Yes ☐ | No ☐ |
| For **pre-mixed** windscreen washer fluid: Are at least 90% of the ethanol (on an annual basis) produced from a residual product in line with the Renewable Energy Directive (EU) 2018/2001? | Yes ☐ | No ☐ |

| **O16 B: Labels for rigid plastic packaging: Design for recycling** | | |
|---|---|---|
| Is there any direct printing on the container apart from date codes, batch codes and UFI (Unique Formula Identifier)? | Yes ☐ | No ☐ |

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 |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 3 Declaration from the manufacturer of the raw material to care products for vehicles

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of care products for vehicles.

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.

Name of raw material: _____

Function of raw material: _____

Please note that 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.

*The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled care products for vehicles. Impurities are not regarded as ingoing substances and are exempt from the requirements.*

*Ingoing substances and impurities are defined below, unless stated otherwise in the requirements*

- *Ingoing substances: all substances in the Nordic Swan Ecolabelled product, 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, incl. production of raw materials that remain in the raw material / ingredient and / or in the in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w-%, 100 mg / kg) in the Nordic Swan Ecolabelled product.*
- *Impurities in the raw materials exceeding concentrations of 1,0 % are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.*

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

Ingoing substances in the raw material (chemical name, CAS no., quantity in wt%):

_____

_____

_____

_____

Proposed DID nos. for the raw material including all ingoing substances:

_____

_____

_____

_____

| **O5: Classification of ingoing substances** | | |
|---|---|---|
| Does the raw material contain substances classified with any of the hazard phrases below?<br>Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i. | | |
| H350 – May cause cancer, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H351 – Suspected of causing cancer, hazard category 2 | Yes ☐ | No ☐ |
| H340 – May cause genetic defects, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H341 – May cause genetic defects, hazard category 2 | Yes ☐ | No ☐ |
| H360 – Toxic for reproduction, hazard category 1A and 1B | Yes ☐ | No ☐ |
| H361 – Toxic for reproduction, hazard category 2 | Yes ☐ | No ☐ |
| H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category) | Yes ☐ | No ☐ |
| H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B | Yes ☐ | No ☐ |
| H317 – Skin sensitising category 1 / 1A / 1B | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O6: Organic substances, degradability** | | |
|---|---|---|
| Are all organic substances in the raw material aerobically biodegradable in accordance with test method no. 301 A–F, no. 310 in OECD guidelines for testing of chemicals or equivalent test methods? | Yes ☐ | No ☐ |
| Are all organic substances in the raw material anaerobically biodegradable in accordance with ISO 11734, ECETOC no. 28, OECD 311 or equivalent test methods? | Yes ☐ | No ☐ |
| **If no to any of the above questions, please indicate if the substance is one of the following:** | | |
| Non-chlorinated polymers | Yes ☐ | No ☐ |
| Non-chlorinated natural and synthetic waxes | Yes ☐ | No ☐ |
| Preservatives | Yes ☐ | No ☐ |
| Fragrances | Yes ☐ | No ☐ |
| Colourants in windscreen washer fluid | Yes ☐ | No ☐ |
| Colourants in professional products | Yes ☐ | No ☐ |
| Denaturing agents in ethanol | Yes ☐ | No ☐ |
| Iminodisuccinate (DID-no. 2555) | Yes ☐ | No ☐ |
| Rocin acid in tall oil | Yes ☐ | No ☐ |
| Unsaponifiables in tall oil | Yes ☐ | No ☐ |
| Hydrocarbons, C11-20 | Yes ☐ | No ☐ |
| Urea | Yes ☐ | No ☐ |
| Other, explain | Yes ☐ | No ☐ |

State the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O7: Substances prohibited from products** | | |
|---|---|---|
| Does the raw material contain any of the following substances? | | |
| Colourants | Yes ☐ | No ☐ |
| Linear alkylbenzene sulphonates (LAS) | Yes ☐ | No ☐ |
| Alkylphenol ethoxylates (APEO) and / or alkylphenol derivatives (APD) | Yes ☐ | No ☐ |
| EDTA (ethylenediaminetetraacetic acid) and its salts and DTPA (diethylenetriamine pentaacetate) | Yes ☐ | No ☐ |
| Quarternary ammonium salts that are not readily biodegradable | Yes ☐ | No ☐ |
| Organic chlorine compounds and hypochlorites | Yes ☐ | No ☐ |
| Benzalkonium chloride | Yes ☐ | No ☐ |
| MG (methyldibromo glutaronitrile acid, CAS no. 35691-65-7) | Yes ☐ | No ☐ |
| MI (methylisothiazolinone acid, CAS no. 2682-20-4) | Yes ☐ | No ☐ |
| Nitro musks and polycyclic musk compounds | Yes ☐ | No ☐ |
| Phthalates | Yes ☐ | No ☐ |
| Halogenated and / or aromatic solvents | Yes ☐ | No ☐ |

| | | |
|---|---|---|
| Fluorine surfactants and other per- and polyfluorinated compounds (PFAS) | Yes ☐ | No ☐ |
| BHT (butylated hydroxytoluene, CAS no. 128-37-0) | Yes ☐ | No ☐ |
| HMDS (hexamethyldisiloxane, CAS no. 107-46-0) | Yes ☐ | No ☐ |
| Microplastics, according to either the new* or the old** definition (you are only required to answer for one of the two definitions):<br><br>According to the new definition:<br><br>According to the old definition: | <br><br>Yes ☐<br><br>Yes ☐ | <br><br>No ☐<br><br>No ☐ |
| ***New definition:** Microplastics are synthetic polymer microparticles as defined in REACH Regulation ((EC) No 1907/2006), Annex XVII, Entry no. 78:<br>Synthetic polymer microparticles: polymers that are solid, and which fulfil both of the following conditions:<br>a) are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles.<br>b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions:<br>(i) all dimensions of the particles are equal to or less than 5 mm.<br>(ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.<br>The following polymers are excluded from this designation:<br>a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances.<br>b) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].<br>c) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006].<br>d) polymers that do not contain carbon atoms in their chemical structure.<br>*N.B. The following "Conditions of restriction" paragraphs apply: 1 (concentration limit in mixtures), 2 (definitions), 3 (particle size limits). The remaining points do not apply, e.g. 4 (Paragraph 1 shall not apply to the placing on the market of:), e.g. 4(a) "synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites", 5 (derogations), e.g. 5 (b) "synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry".*<br><br>****Old definition:** Microplastic means particles with a size of below 5 mm of insoluble macromolecular plastic, obtained through one of the following processes:<br>(a) a polymerisation process such as polyaddition or polycondensation or a similar process using monomers or other starting substances;<br>(b) chemical modification of natural or synthetic macromolecules;<br>(c) microbial fermentation. | | |
| Endocrine disruptors in line with the following:<br>• Substances considered to be potential endocrine disruptors according to the European Commission's Endocrine Disruptor priority list, category 1 and 2, or future priority lists from the European Commission. https://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, page 238 onwards)<br>• Substances that have been identified as meeting or potentially meeting WHO's definition of an endocrine disruptor by the Danish Centre on Endocrine Disruptors (CeHoS). http://www.cend.dk/files/DK_ED-list-final_2018.pdf (Tables 8 and 13), or later publications.<br>• Substances identified as hormone disruptors according to the scientific criteria in the Biocidal Products Regulation (EU 2017/2100) or the Plant Protection Products Regulation (EU 2018/605).<br>• Substances identified as endocrine disruptors by ECHA's ED Expert Group: https://echa.europa.eu/fi/ed-assessment | Yes ☐ | No ☐ |
| Substances that have been judged in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative), in accordance with the criteria in Annex XIII of REACH, plus substances that have not yet been investigated but that meet these criteria. | Yes ☐ | No ☐ |

| | | |
|---|---|---|
| Substances categorised as Substances of Very High Concern (SVHC) and included on the Candidate List: https://echa.europa.eu/candidate-list-table. | Yes ☐ | No ☐ |
| Nanomaterials / particles<br>*Nanomaterials / particles are defined in accordance with the European Commission's definition of nanomaterials dated 18 October 2011, "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 are in the size range of 1–100 nm." Examples are ZnO, TiO2, SiO2, Ag and laponite with particles of nanosize in concentrations exceeding 50%. Polymer emulsions are not considered to be nanomaterial.* | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O8: Siloxanes** | | |
|---|---|---|
| Does the raw material contain any of the following substances? | | |
| D4 (octamethylcyclotetrasiloxane, CAS no. 556-67-2) | Yes ☐ | No ☐ |
| D5 (decamethylcyclopentasiloxane, CAS no. 541-02-6) | Yes ☐ | No ☐ |
| D6 (dodecamethylcyclohexasiloxane, CAS no. 540-97-6) | Yes ☐ | No ☐ |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O9: Fragrances** | | |
|---|---|---|
| Does the raw material contain fragrances (including fragrance substances in plant extracts)? | Yes ☐ | No ☐ |
| If yes, have fragrances been added in line with IFRA guidelines?<br>The guidelines of the International Fragrance Association (IFRA) can be found at www.ifraorg.org/ | Yes ☐ | No ☐ |
| If yes, are any of the fragrances judged to be sensitising with hazard code H317 and / or H334? | Yes ☐ | No ☐ |
| If yes, does the product include any fragrance substances that are subject to declaration? | Yes ☐ | No ☐ |
| If yes, are any of the fragrances present listed in the table below? | Yes ☐ | No ☐ |
| If yes, is HICC, chloroatranol, atranol or Lilial present? | Yes ☐ | No ☐ |

| **INCI name (or fragrance name in accordance with CosIng)** | **CAS no.** |
|---|---|
| Cananga Odorata and Ylang-ylang oil | 83863-30-3;<br>8006-81-3 |
| Eugenia Caryophyllus Leaf / Flower oil | 8000-34-8 |
| Jasminum Grandiflorum / Officinale | 84776-64-7;<br>90045-94-6;<br>8022-96-6 |
| Myroxylon Pereirae | 8007-00-9; |
| Santalum Album | 84787-70-2;<br>8006-87-9 |
| Turpentine oil | 8006-64-2;<br>9005-90-7;<br>8052-14-0 |
| Verbena absolute | 02/12/8024 |
| Cinnamomum cassia leaf oil / Cinnamomum zeylanicum, ext. | 8007-80-5 /<br>84649-98-9 |

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). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O11: VOC** | | |
|---|---|---|
| Does the raw material contain VOC?<br>*Organic substances are defined as VOC if the vapour pressure is > 0.01 kPa at 20°C.* | Yes ☐ | No ☐ |

If the answer to the above question is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

| **O12: Long-term environmental effects** | | |
|---|---|---|
| Does the raw material contain any substances classified as harmful to the environment with the risk code H400, H410, H411 or H412?<br>Note that in order to assess the classification, all the available data must have been evaluated, including data in ECHA databases. | Yes ☐ | No ☐ |

If the answer to the above question is Yes, state the CAS no. (where possible), chemical name and level (in ppm, % by weight or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

_____

_____

_____

_____

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

| | |
|---|---|
| Place and date | Company name / stamp |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 4 Test methods and analysis laboratories

## 1 Requirement for analysis laboratory

The following applies to tests regarding ecotoxic effects and performance tests. The analysis laboratory must be competent and impartial as specified below.

The analysis laboratory must fulfil the general requirements of standard ISO 17025 or have official GLP status.

To carry out performance tests, the applicant's own laboratory may be approved if the following conditions are met:

- The manufacturer has a quality system that includes sampling and analysis and is certified according to the ISO 9000 series or The International Featured Standards-standard (IFS) for Household and Personal Care.
- The test method for performance tests must be included in the quality system.
- Nordic Ecolabelling is to be given access to all the raw data from the performance test.

## 2 Exotoxological test methods

International test methods (OECD Guidelines for Testing of Chemicals, ISBN 92-64-1222144) or equivalent methods must be used for documentation. If equivalent methods are used, these must be assessed by an independent body to ensure that the results are also equivalent. The relevant test methods that must be used are stated below.

## 3 Acute aquatic toxicity

For acute aquatic toxicity, test methods nos. 201, 202, 203 or 229 in the OECD Guideline for the Testing of Chemicals (ISBN 92-64-1222144) or DIN 38412-33 are to be used. For UVCB substances with limited water-soluble components EL50/LL50 values can be used instead of EC50/LC50 values.

Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

## 4 Chronic aquatic toxicity

For chronic aquatic toxicity, test method no. 211 (Daphnia magna) and 210, 215 or 229 (fish) in the OECD Guideline for the Testing of Chemicals is to be used. Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

OECD 201 (algae) may be used as a chronic test for algae, if chronic endpoints are chosen.

## 5 Bioaccumulation

If the bioaccumulative properties of a substance can be tested on fish in line with OECD test 305 A-E and its bioconcentration factor (BCF) is > 500, the substance is considered to be bioaccumulative. If the BCF value is not available, a

substance is considered to be bioaccumulative if its logKow ≥ 4.0 according to 107, 117 or 123 in the OECD Guidelines for the Testing of Chemicals (ISBN 92-64-1222144) or equivalent, unless proven to be otherwise. If the highest measured BCF ≤ 500, the substance is not considered to be bioaccumulative even if its logKow ≥ 4.0.

The OECD's test 107 cannot be applied to surfactants which have both fat and water-soluble properties. Based on what is known today, for such substances it must be demonstrated with a high degree of certainty that they and their degradation products do not pose any risk to aquatic organisms over a longer time perspective.

Data models (such as BioWin) are accepted, but if the results of the model calculations are close to the limit values or Nordic Ecolabelling has contradictory data, more certain information may be required.

## 6 Aerobic degradability

For ready biological degradability, test method no. 301 (A-F) or no. 310 in OECD guidelines for testing of chemicals shall be used.

Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

## 7 Anaerobic degradability

For anaerobic degradability, ISO 11734, ECETOC no. 28 or OECD 311 shall be used.

Other scientifically accepted test methods may be used if the test results are assessed by an independent body and checked by Nordic Ecolabelling.

For a substance to be considered anaerobic, > 60% mineralisation is required after max 60 days (equates to > 60% ThOD / ThCO2 or > 70% DOC reduction).

Substances that are not surfactants and are not on the DID list, or for which data on the DID list is lacking, may be exempted from the anaerobic degradability requirement if they are aerobically biodegradable and not toxic to aquatic life (lowest chronic median NOEC / ECx > 0.1 mg / l or acute IC50 / EC50 / LC50 > 10 mg / l), and if one of the following criteria is also met:

- Readily biodegradable and has low adsorption (A < 25%)
- Readily biodegradable and has high desorption (D > 25%)
- Readily biodegradable and not potentially bioaccumulative

To determine adsorption / desorption, use method 106 in the OECD Guidelines or ISO CD 18749 "Water quality – Adsorption of substance activated sludge".

## 8 DID list

The DID list is a common list for the EU Ecolabel and Nordic Ecolabelling. The list is drawn up in collaboration with stakeholders both from consumer and environmental organisations and from industry. It contains information on toxicity and biodegradability for a number of substances that might be used for

products in the chemical technical field. The substances on the DID list are not an expression of the substances that are contained in ecolabelled products.

The DID list cannot be used to document the toxicity of the individual substances in connection with the classification rules. Here, information from safety data sheets, literature or the raw materials producer must be used.

The separate DID list can be requested from the ecolabelling organisation or via the website for the respective country, see page 3 of the criteria document.

For these criteria, the DID list issued in 2016 or later versions apply.

Calculation sheets can be used to calculate the critical dilution volume (CDV) in requirement O11. These are available from Nordic Ecolabelling and can be downloaded from all of the Nordic secretariats' websites.

If data for chronic toxicity is not available, acute data and the associated safety factor may be used to estimate the chronic toxicity factor. If a substance is not included on the DID list, or if data is lacking on the DID list, the method in part B of the DID list must be used.

# Appendix 5 POCP values for VOC

The tables below contain POCP values for various solvents. The calculation is based on the EDIP 2003 method from LCA Center Denmark [7]. The values in the table are taken from the "British trajectory model".

| **Alkanes** | **0.4 + / - 0.1 (worst case = 0.5)** |
|---|---|
| Methane | 0.007 1 |
| Ethane | 0.1 |
| Propane | 0.5 |
| n-butane | 0.5 |
| i-butane | 0.4 |
| n-pentane | 0.3 |
| i-pentane | 0.3 |
| n-hexane | 0.5 |
| 2-methylpentane | 0.5 |
| 3-methylpentane | 0.4 |
| 2,2-dimethyl-butane | 0.31 |
| 2,3-dimethyl-butane | 0.41 |
| n-heptane | 0.5 |
| 2-methylhexane | 0.51 |
| 3-methylhexane | 0.51 |
| n-octane | 0.5 |
| 2-methylheptane | 0.5 |
| n-nonane | 0.4 |
| 2-methyloctane | 0.5 |
| n-decane | 0.4 |
| 2-methylnonane | 0.4 |
| n-undecane | 0.4 |
| n-dodecane | 0.3 |
| Methylcyclohexane | 0.5 |

| **Alkenes** | **0.5 + / - 0.2** |
|---|---|
| Ethylene | 1.0 |
| Propylene | 0.6 |
| 1-butene | 0.5 |
| 2-butene (trans) | 0.4 |
| 2-pentene (trans) | 0.4 |
| 2-methylbut-1-ene | 0.2 |
| 2-methylbut-2-ene | 0.5 |
| 3-methylbut-1-ene | 0.5 |
| Isobutene | 0.6 |
| Isoprene | 0.6 |

| **Alkynes** | **0.4** |
|---|---|
| Acetylene | 0.4 |

| **Aromatics** | |
|---|---|
| Benzene | 0.4 |
| Toluene | 0.5 |
| o-xylene | 0.2 |
| m-xylene | 0.5 |
| p-xylene | 0.5 |
| Ethylbenzene | 0.5 |
| 1,2,3-trimethylbenzene | 0.3 |
| 1,2,4-trimethylbenzene | 0.3 |
| 1,3,5-trimethylbenzene | 0.3 |
| o-ethyltoluene | 0.4 |
| m-ethyltoluene | 0.4 |
| p-ethyltoluene | 0.4 |
| n-propylbenzene | 0.5 |
| Isopropylbenzene | 0.5 |

| **Aldehydes** | **0.3 + / - 0.2** |
|---|---|
| Formaldehyde | 0.3 |
| Acetaldehyde | 0.2 |
| Propionaldehyde | 0.2 |
| Butyraldehyde | 0.2 |
| Isobutyraldehyde | 0.3 |
| Valeraldehyde | 0.3 |
| Acrolein | 0.8 |
| Benzaldehyde | - |

| **Ketones** | **0.2 + / - 0.1** |
|---|---|
| Acetone | 0.1 |
| Methyl ethyl ketone | 0.2 |
| Methyl i-butyl ketone | 0.3 |

[7] LCA Center Denmark (2007): EDIP characterisation factors for photochemical ozone formation (High NOx).

| **Alcohols** | **0.2 + / - 0.02** |
|---|---|
| Methanol | 0.2 |
| Ethanol | 0.2 |
| Isopropanol | 0.2 |
| Butanol | 0.2 |
| Isobutanol | 0.3 |
| Butan-2-diol | 0.3 |

| **Chloralkanes** | **0.01 + / - 0.01** |
|---|---|
| Dichloromethane | 0.02 |
| Chloroform | 0.004 |
| Methyl chloroform | 0.002 |

| **Ethers** | **0.4 + / - 0.1** |
|---|---|
| Dimethyl ether | 0.3 |
| Propylene glycol methyl ether | 0.5 |

| **Esters** | **0.2 + / - 0.1** |
|---|---|
| Methyl acetate | 0.1 |
| Ethyl acetate | 0.3 |
| Isopropylacetate | 0.2 |
| n-butyl acetate | 0.3 |
| Isobutyl acetate | 0.4 |
| Propylene glycol methyl ether acetate | 0.2 |

| **Chloralkenes** | **0.2 + / - 0.3** |
|---|---|
| Trichloroethylene | 0.1 |
| Tetrachloroethylene | 0.01 |
| Allyl chloride | 0.5 |

# Appendix 6 Declaration from the manufacturer of ethanol

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of care products for vehicles.

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.

Trade name of the ethanol: _____

Is the ethanol produced from renewable raw material? ☐ Yes ☐ No

*A renewable raw material is defined as a raw material originating from biological material which is renewed continuously in nature within the immediate future, such as cereals and wood (European standard EN 16575:2014).*

If yes, which raw materials?

_____

_____

Is the ethanol produced from sugarcane? ☐ Yes ☐ No

*The requirement does not cover by-products, residues, and waste products from the sugar cane industry itself. The requirement also does not cover residues and waste products generated by households or commercial, industrial, or institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose.*

If the ethanol is produced from sugarcane:

- Is it certified according to Bonsucro standard (EU REDII approved), version 5.1 or later version? ☐ Yes ☐ No
- Is it certified according to ISCC PLUS v.3 or later version? ☐ Yes ☐ No

Is the ethanol produced from genetically modified organisms (GMOs), for example, genetically modified maize, sugarcane, or sugar beet? ☐ Yes ☐ No

*Genetically modified organisms are defined in EU Directive 2001/18. Enzymes and other substances produced by the use of genetically modified microorganisms are not defined as GMOs or material derived from GMOs.*

| | |
|---|---|
| Place and date | Company name / stamp |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 7 User test windscreen washer fluids

This appendix must be filled in by the applicant.

The declaration relates to the following product / product system:

| |
|---|
| Product name |
| Product system |
| Manufacturer |

The user test must meet the following requirements:

1. At least five independent users must test the product for at least two months under relevant conditions.
2. The user must have experience of other windscreen washer fluids on the market.
3. The product is to be tested at the dose recommended on the packaging label.
4. The results are to be assessed visually by the user.
5. At least 80% of the users must judge the product to be adequately effective or very effective.
6. The user must fill in Appendix 8. All appendices are to be submitted to Nordic Ecolabelling.
7. A test report describing the user test, including a summary of the results, is to be submitted to Nordic Ecolabelling.

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 |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 8 Form for user test windscreen washer fluids

This appendix must be filled in by the user.

The declaration relates to the following product / product system:

| |
|---|
| Product name |
| Product system |
| Manufacturer |

Dosing during the test (grams / litre of working solution):

_____

Recommended dosing as stated on the label / packaging (grams / litre of working solution):

_____

Test period (minimum two months):

_____

The user's experience of other windscreen washer fluids on the market:

☐ No experience

☐ Experience of 1–2 other windscreen washer fluids

☐ Experience of 3 or more windscreen washer fluids

Overall assessment of the product:

☐ Not effective

☐ Adequately effective

☐ Very effective

| Place and date | |
|---|---|
| User’s name | User’s signature |
| Phone | E-mail |

# Appendix 9 Declaration from the manufacturer of the primary packaging

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabelling of care products for vehicles.

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.

| |
|---|
| Producer / distributor |
| Part of the packaging (e.g. bottle, flexible bag / pouch, closure, label)) |
| Packaging material (type of plastic etc.) List all materials included in the packaging component. |

| **Plastic packaging (excluding flexible bags / pouches)**<br>*Packaging refers to bottles, cans, pots or similar.* | | |
|---|---|---|
| If the packaging is made from PET (polyethylene terephthalate): Are pigments added? | Yes ☐ | No ☐ |
| Is the packaging dyed with carbon black? | Yes ☐ | No ☐ |
| Are barriers used? | Yes ☐ | No ☐ |
| Are fillers used?<br>If yes, state the concentration and density of the plastic: | Yes ☐ | No ☐ |
| Are metal parts included in the packaging?<br>If yes, state the use of the metal parts: | Yes ☐ | No ☐ |

| **Flexible bags / pouches**<br>*Packaging refers to flexible bags / pouches.* | | |
|---|---|---|
| Is the packaging made from monomaterial, i.e. not laminated with layers of different material? | Yes ☐ | No ☐ |
| Is the packaging dyed with carbon black (except in text and pictograms printed on the bag)? | Yes ☐ | No ☐ |
| Are fillers used?<br>If yes, state the concentration and density of the plastic: | Yes ☐ | No ☐ |

| **Closures**<br>*Closure refers to caps, lids, oblates, seals, and integral dosing devices / pumps.* | | |
|---|---|---|
| Is oblate or seal included in the closure?<br>If yes, enter material: | Yes ☐ | No ☐ |
| Is the closure dyed with carbon black | Yes ☐ | No ☐ |
| Are barriers used? | Yes ☐ | No ☐ |
| Are fillers used?<br>If yes, state the concentration and density of the plastic: | Yes ☐ | No ☐ |
| Is silicone used in the closure? | Yes ☐ | No ☐ |
| Are metal parts included in the packaging?<br>If yes, state the use of the metal parts: | Yes ☐ | No ☐ |

| **Labels and shrink sleeve labels** | | |
|---|---|---|
| Are metal parts included in the label / shrink sleeve label?<br>If yes, state the use of the metal parts: | Yes ☐ | No ☐ |
| Does the label contain polyvinyl chloride (PVC) or other halogenated plastics? | Yes ☐ | No ☐ |
| For non-polyolefin plastics on PE and PP containers: Enter the density of the label:<br>*Note that the density must be entered in g/cm$^3$.* | Yes ☐ | No ☐ |
| For labels on PET containers: Enter the density of the label:<br>*Note that the density must be entered in g/cm$^3$.* | Yes ☐ | No ☐ |

| | |
|---|---|
| Place and date | Company name / stamp |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 10 Function test

This appendix must be filled in by the applicant.

The declaration relates to the following product / product system:

| |
|---|
| Product name |
| Product system |
| Manufacturer |

The function test must meet the following requirements:

1. The method must be representative of the way the product is used in reality. This means that the following parameters must replicate the conditions under which the product is intended to be used: Dirt (for cleaning products), object being tested, water temperature, amount of product used, time allowed for product to work, mechanical actions etc.
2. In the test, the product must be compared with an equivalent product that is already on the market. It is important that products in the same category are compared with each other, so that water-based products, for example, are not compared with solvent-based products and degreasers compared with shampoos.
3. The product must be tested in the concentration recommended on the label / product sheet.
4. The results are to be assessed visually and / or measured with an instrument.
5. Nordic Ecolabelling must approve the test method before the test is carried out.
6. A test report describing the method, including photos or other documentation of the results, is to be submitted to Nordic Ecolabelling.

| **Test conditions** | |
|---|---|
| Type of dirt (for cleaning products) | |
| Tested object (wheel, car part, boat part, train part, etc.) | |
| Water temperature | |
| Dosing of test product (grams / litre of working solution (for products to be diluted before use) or other unit) | |
| Recommended dosing of test product (as stated on the label / packaging) | |

| | |
|---|---|
| Time to work (minutes) | |
| Mechanical actions (sponge, cloth, etc.) | |
| Reference product (name of product and manufacturer) | |
| Dosing of reference product (grams / litre of working solution (for products to be diluted before use) or other unit) | |
| Recommended dosing of reference product (as stated on the label / packaging) | |

**Assessment:**

☐ Visual (photo)

☐ Measurement with instrument

**Results:**

☐ Less effective than reference product

☐ Equally as effective as reference product

☐ More effective than reference product

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 |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 11 User test

This appendix must be filled in by the applicant.

The declaration relates to the following product / product system:

| |
|---|
| Product name |
| Product system |
| Manufacturer |

The user test must meet the following requirements:

1. At least five professional users must test the product / product system on at least 10 occasions under relevant conditions.
2. The product / product system is to be tested at the dose recommended on the packaging label.
3. At least 80% of the professional users must judge the product / product system to be adequately effective or very effective.
4. The professional users must fill in Appendix 12. All appendices are to be submitted to Nordic Ecolabelling.
5. A test report describing the user test, including a summary of the results, is to be submitted to Nordic Ecolabelling.

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 |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |

# Appendix 12 Form for user test

This appendix must be filled in by the professional user.

The declaration relates to the following product / product system:

| |
|---|
| Product name |
| Product system |
| Manufacturer |

Dosing during the test (grams / litre of working solution):

_____

Recommended dosing as stated on the label / packaging (grams / litre of working solution) for:

May – September: _____

October – April: _____

Is the product / product system used in combination with other chemical products? ☐ Yes ☐ No

If yes, what are they? _____

No. of occasions on which the product has been tested (min 10): _____ times.

Type of wash installation: _____

Item washed: ____

_____

Overall assessment of the product / product system:

☐ Not effective

☐ Adequately effective

☐ Very effective

| | |
|---|---|
| Place and date | Company name / stamp |
| Person responsible | Signature of responsible individual |
| Phone | E-mail |