

# Nordic Ecolabelling for Industrial cleaning and degreasing agents



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# 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](http://www.svanemaerket.dk)

## Finland

Ecolabelling Finland  
[www.joutsenmerkki.fi](http://www.joutsenmerkki.fi)

## Sweden

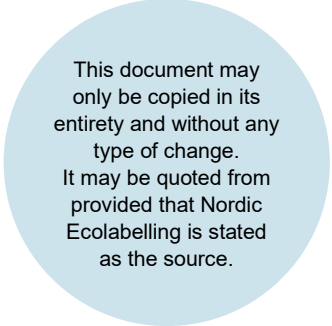
Ecolabelling Sweden  
[www.svanen.se](http://www.svanen.se)

## Iceland

Ecolabelling Iceland  
[www.svanurinn.is](http://www.svanurinn.is)

## Norway

Ecolabelling Norway  
[www.svanemarket.no](http://www.svanemarket.no)



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# 1 Environmental communication guideline for Nordic Swan Ecolabel industrial cleaning and degreasing agents

Nordic Swan Ecolabel industrial cleaning and degreasing agents meet ambitious environmental requirements from a holistic life cycle perspective. This means that they are amongst the environmentally best in their category.

Nordic Swan Ecolabel industrial cleaning and degreasing agents:

- Effectively remove oil, grease, dirt, or graffiti paint.
- Meet strict environmental requirements for chemicals, focusing on ecotoxicity, bioaccumulation and degradability.
- Meet strict health requirements for chemicals, including a ban on adding substances classified to cause cancer, toxic to reproduction or to potentially damage genetic material. Also identified or potential endocrine disruptors on up-to-date lists from EU and national authorities or by classification are banned.
- Meet strict limits on volatile organic compounds (VOC) to minimise the contribution to ground-level ozone formation.

The overall environmental impact in the lifecycle of this product group and Nordic Swan Ecolabel identification of where ecolabelling can have the greatest effect is described in “Environmental impact of industrial cleaning and degreasing agents”.

## 2 What can carry the Nordic Swan Ecolabel?

### *Product group definition*

Products that are primarily intended to remove soiling such as oil residues, wax, grease, dust, graffiti paint and other types of dirt from surfaces, machine parts, tools and pipe systems made of materials like steel, aluminium, concrete and plastic can be Nordic Swan Ecolabelled. The products must be exclusively intended for professional use within industrial settings. The areas of use include:

- Cleaning and degreasing floors and walls in production facilities
- Cleaning and degreasing of metal parts in industrial settings, including machinery, components, and production equipment
- Specialized façade and surface cleaning, such as graffiti removal
- Cleaning and degreasing of floors, decks, and equipment in offshore environments (e.g., oil platforms)
- Cleaning of decks, tanks, and cargo holds on ships
- Cleaning of water cooling systems and water treatment plants
- Cleaning of pipe systems (CIP; clean in place)
- Cleaning of solar modules
- Cleaning of liquid damaged electronics

The criteria do not cover care products for vehicles (except for graffiti removers), cleaning agents for use in the food industry or universal and sanitary cleaning agents, since there are separate criteria for these product types.

Additionally, products containing microorganisms, water treatment chemicals, and products intended for the pharmaceutical industry are not eligible for the Nordic Swan Ecolabel.

Furthermore, disinfectant products are excluded from carrying the Nordic Swan Ecolabel due to restrictions imposed by the Biocidal Products Regulation (EU) 528/2012. Nordic Swan Ecolabelled products within this product group must not claim biocidal, disinfectant, or antimicrobial effects.

### 3 How to read this criteria document

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 is an icon in the text to make this clearer. This icon is:

† Documentation required

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

## 4 Requirements

### 4.1 Definition of ingoing substances and impurities

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

- **Ingoing substances:** All substances\* in the product including additives (e.g. preservatives and stabilisers) from the raw materials. Substances released from ingoing substances (e.g. biocidal active substances generated by preservatives, such as formaldehyde) are also regarded as ingoing substances.

*\* N.B. the difference from the definition of substances in the REACH Regulation (EC) No 1907/2006. Whereas a REACH substance encompasses a chemical element or compound as well as its stabilising additives and process impurities, a substance here refers to each of the constituents separately. The constituents of a UVCB substance (Unknown or Variable composition, Complex reaction products or of Biological materials) are also regarded separately, and all known constituents shall be regarded.*

- **Impurities:** Trace levels of pollutants, contaminants and residues from production, incl. production of raw materials that remain in the product in

concentrations  $\leq 100$  ppm ( $\leq 0.0100$  w%). For formaldehyde other than as a biocidal active substance and for arylamine, the corresponding concentration is  $\leq 50$  ppm ( $\leq 0.0050$  w%).

*Examples of impurities: Background environmental pollutants from feedstock, as well as contaminants and residues from production such as reactants (incl. monomers), reagents, catalysts, by-products, scavengers, detergents for production equipment, carry-over from other or previous production lines.*

- **Impurities in the raw materials** in concentrations  $\geq 10\ 000$  ppm ( $\geq 1.0000$  w%) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

### **Additional information concerning definitions of ingoing substances and impurities**

*Limit values:* The limit for excluded ingoing substances is 0 ppm (unless otherwise stated), while there's a specific defined limit for impurities. The impurity limit applies separately to each individual excluded substance, from each individual raw material. Concentrations of different impurities with the same excluded classification or substance group characteristics shall not be summed up to meet the impurity limit in the labelled product. Also, concentrations of an individual impurity, originating from different raw materials, shall not be summed.

*UVCB substances:* UVCB substances (Unknown or Variable composition, Complex reaction products or of Biological materials) have a composition of constituents that is not completely known or is variable from time to time. For UVCB substances, all constituents that are known must be declared in the Nordic Swan Ecolabel raw material appendix based on the best available knowledge. All constituents are considered individually and are subject to the chemical requirements, including for instance those on excluded substances and excluded classifications.

However, in the requirements concerning environmentally hazardous substances, aNBO, anNBO and CDV, the UVCB substance can be considered as one ingoing substance and placed in a single row in the calculation sheet. If the UVCB substance can be assigned a DID-number, the data on the DID-list must be used.

## **4.2 General requirement area**

### **O1 Description of the product**

The applicant must provide the following information about the product.

- Description of the product and its area of use.
- A complete formulation for the product. The formulation must, if possible, include for each ingoing substance:
  - Trade name
  - Chemical name
  - Amount (both with and without solvents, e.g., water)
  - CAS No. and/or EC number

- DID number for substances that can be placed in the DID-list 2023 or later versions\*
- Function

If a raw material consists of several substances, data for all ingoing substances is to be stated in the formulation.

\* DID-list: "Detergents Ingredients Database" list, see Appendix 3 for a detailed description.

- † Label and description of the product and its area of use.
- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Complete formulation in line with the requirement. Nordic Ecolabelling's calculation sheet for Industrial cleaning and degreasing agents can be used. It is available from Nordic Ecolabelling's websites.
- † Safety data sheet for each raw material in line with prevailing legislation in the country of application, e.g., Annex II to REACH (Regulation 1907/2006/E2EC).

## O2 Classification of the product

The product must not be classified with the hazard codes listed in the table below, in accordance with CLP Regulation 1272/2008.

**Table 1 Classification of the product**

Hazard class	Hazard class and category	Hazard code
Carcinogenicity*	Carc. 1A or 1B	H350
	Carc. 2	H351
Germ cell mutagenicity*	Muta. 1A or 1B	H340
	Muta. 2	H341
Reproductive toxicity*	Repr. 1A or 1B	H360
	Repr. 2	H361
	Lact.	H362
Respiratory or skin sensitisation	Resp. Sens. 1, 1A or 1B	H334
	Skin Sens. 1, 1A or 1B	H317
Acute toxicity	Acute Tox. 1 or 2	H300
	Acute Tox. 1 or 2	H310
	Acute Tox. 1 or 2	H330
	Acute Tox. 3	H301
	Acute Tox. 3	H311
	Acute Tox. 3	H331
	Acute Tox. 4	H302
	Acute Tox. 4	H312
	Acute Tox. 4	H332
Hazardous to aquatic environment	Aquatic Acute 1	H400
	Aquatic Chronic 1	H410
	Aquatic Chronic 2	H411
	Aquatic Chronic 3	H412
	Aquatic Chronic 4	H413
Hazardous to the ozone layer	Ozone	H420
Specific target organ toxicity, single or repeated exposure	STOT SE 1	H370
	STOT SE 2	H371
	STOT RE 1	H372

	STOT RE 2	H373
Aspiration hazard	Asp. Tox. 1	H304
Flammable aerosols	Flam. Aer. 1	H222
Flammable liquids	Flam. Liq. 1	H224
Endocrine disruption for human health	ED HH 1 ED HH 2	EUH380 EUH381
Endocrine disruption for the environment	ED ENV 1 ED ENV 2	EUH430 EUH431
Persistent, Bioaccumulative and Toxic properties Very Persistent, Very Bioaccumulative properties	PBT vPvB	EUH440 EUH441
Persistent, Mobile, and Toxic properties Very Persistent, Very Mobile properties	PMT vPvM	EUH450 EUH451

\* 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/EC).

† Appendix 1 or equivalent declaration from the manufacturer of the product.

### O3 Classification of ingoing substances

Ingoing substances must not be classified with the hazard codes listed in the table below, in accordance with CLP Regulation 1272/2008.

**Table 2 Classification of ingoing substances**

Hazard class	Hazard class and category	Hazard code
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351**
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Reproductive toxicity*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Respiratory or skin sensitisation	Resp. Sens. 1, 1A or 1B Skin Sens. 1, 1A or 1B	H334 H317
Specific target organ toxicity, repeated exposure	STOT RE 1	H372
Hazardous to the ozone layer	Ozone	H420
Endocrine disruption for human health***	ED HH 1 ED HH 2	EUH380 EUH381
Endocrine disruption for the environment****	ED ENV 1 ED ENV 2	EUH430 EUH431
Persistent, Bioaccumulative and Toxic properties*** Very Persistent, Very Bioaccumulative properties***	PBT vPvB	EUH440 EUH441
Persistent, Mobile, and Toxic properties	PMT	EUH450

Very Persistent, Very Mobile properties	vPvM	EUH451
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\* 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%.

\*\*\* See also requirement O9 (Excluded substances) for additional requirements for potential or identified endocrine disruptors and PBT/vPvB substances.

- † Safety data sheet for all ingoing substances in line with prevailing European legislation (Annex II to REACH Regulation, 1907/2006/EC).
- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## O4 Surfactants

All surfactants must be readily biodegradable according to Test No. 301 A–F, Test No. 306 or Test No. 310 in OECD Guidelines for the Testing of Chemicals or other equivalent test methods evaluated by an independent body and controlled by Nordic Ecolabelling. For products intended for offshore use, the surfactants must also be readily biodegradable in accordance with Test No. 306 in OECD Guidelines for the Testing of Chemicals or other equivalent test methods evaluated by an independent body and controlled by Nordic Ecolabelling.

All surfactants must be anaerobically biodegradable in accordance with ISO 11734, ECETOC No 28, Test No. 311 in OECD Guidelines for the Testing of Chemicals or equivalent testing methods evaluated by an independent body and controlled by Nordic Ecolabelling.

- † Reference to the DID list dated 2023 or later versions. For substances not on the DID list, or where data on the DID list is missing, the associated documentation must be submitted. See Appendix 3 for test requirements.

## O5 Preservatives

Preservatives may only be added to liquid products. All preservatives in the product must not be bioaccumulative in line with the testing methods in Appendix 3 having a BCF (Bioconcentration Factor) < 500 or log Kow (octanol-water partition coefficient) < 4. See also O9 (Excluded substances) for additional requirements for preservatives.

- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## O6 Organic colorants

All organic colorants in the product or the ingoing substances must not be bioaccumulative in line with the testing methods in Appendix 3 having a BCF (Bioconcentration Factor) less than 500 or log Kow (octanol-water partition coefficient) less than 4. Alternatively, the colorant must be approved for use in food.

- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## O7 Volatile organic compounds (VOC)

### Solvent-based products

Only organic solvents and volatile organic compounds with a vapour pressure < 2.5 kPa at 20°C may be used.

The product label or accompanying product sheet must include health and safety instructions emphasizing the importance of ventilation during use of the product. See also requirement O16 (User information).

Graffiti removers must fulfil the requirements in the category “Graffiti removers” below.

### Other products

VOC content must not exceed 1% by weight in the in-use solution at the maximum recommended dosage.

*Volatile organic compounds (VOCs) are organic compounds with a vapor pressure of 0.01 kPa or more at 293.15 K (20°C)<sup>1</sup>.*

### Graffiti removers

Only organic solvents and volatile organic compounds with a vapour pressure < 0.1 kPa at 20 °C may be used.

The product label or accompanying product sheet must include health and safety instructions emphasizing the importance of ventilation during use of the product. See also requirement O16 (User information).

*Please note that requirement O2 (Classification of the product) prohibits products classified as environmentally harmful, requirement O9 (Excluded substances) prohibits halogenated and aromatic solvents and requirement O13 (Biodegradability) limits the quantity of aerobically and anaerobically non-biodegradable substances.*

- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.
- † Solvent-based products and graffiti removers: Safety data sheet in line with prevailing European legislation (Annex II to REACH Regulation, 1907/2006/EC) or other documentation showing the vapour pressure of all solvents.
- † Solvent-based products and graffiti removers: A copy of the label or accompanying product sheet showing the health and safety instructions emphasizing the importance of ventilation during use of the product.
- † Other products: Calculation of the VOC content of the product.

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<sup>1</sup> Industrial Emissions Directive (IED) 2010/75/EU.

## O8 Phosphorus

Phosphorus is not permitted in products intended for outdoor use. An exception is made for products for use offshore\*, which may contain up to 0.5 g of phosphorus per litre in-use solution.

For indoor-use products, phosphorus content must not exceed 0.5 g per litre in-use solution.

\* Products intended for offshore use that are approved in the green or yellow category under the HOCNF (Harmonised Offshore Chemicals Notification Format), but not products for use in coastal areas, watercourses, or lakes, including freshwater and brackish regions such as the Baltic Sea.

*The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet.*

*Be aware of national legislation on phosphorus where the product will be sold/marketed. In Norway, phosphorus is regulated in sections 2-12 in Regulation on Detergents and Cleaning Products.*

*Please note that aminopolyphosphonates must not be present in the product according to requirement O9 (Excluded substances).*

- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.
- † Calculation of the added amount of phosphorus, calculated as elementary phosphorus (P), per litre in-use solution.

For offshore products that contain phosphorus:

- † Documentation showing that the product is approved in the green or yellow category under the HOCNF (Harmonised Offshore Chemicals Notification Format).
- † A copy of the label or accompanying product sheet that specifies the intended area of use, including a prohibition against use in coastal areas, watercourses, or lakes, including freshwater and brackish regions such as the Baltic Sea.

## O9 Excluded substances

The following substances or substance groups must not be present as ingoing substances in the product.

- Alkylphenols (AP) (e.g. butylated hydroxy anisole (BHA, CAS No. 25013-16-5), alkylphenol ethoxylates (APEO), and other alkylphenol derivatives (APD))
- Aminopolyphosphonates
- Aromatic solvents

*Solvents are defined as in Commission Directive 1999/13/EC: organic substances with a vapour pressure of at least 0.01 kPa at 20 °C.*

*Exception: Solvents in graffiti removers may contain ≤ 5000 ppm aromatic hydrocarbons as a result of the purification / refining process.*

- Benzalkonium chloride (CAS No. 8001-54-5, 63449-41-2 and others)

- Bisphenols and bisphenol derivatives, defined as the 34 bisphenols that have been identified by ECHA<sup>2</sup> for further EU regulatory risk management because they are known or potential endocrine disruptors for the environment or for human health, or can be identified as toxic for reproduction.
- Boric acid, borates, and perborates
- Ethylenediamine tetraacetate (EDTA, CAS No. 6381-92-6) and its salts and diethylenetriamine pentaacetate (DTPA, CAS No. 67-43-6) and its salts
- Fragrances
- Halogenated organic compounds
- Isothiazolinones (e.g. methylisothiazolinone (MIT), CAS No. 2682-20-4, methylchloroisothiazolinone (CMIT), CAS No. 26172-55-4, C(M)IT/MIT (3:1), CAS No. 55965-84-9, benzisothiazolinone (BIT), CAS No. 2634-33-5, octylisothiazolinone (OIT), CAS No. 26530-20-1 and dichlorooctylisothiazolinone (DCOIT), CAS No. 64359-81-5)
- LAS (linear alkylbenzene sulphonates)
- NTA (nitrilotriacetic acid, CAS No. 139-13-9) and its salts

*Exemption: 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 final product is below 0.1%.*

- Organic chlorine compounds, hypochlorous acid and hypochlorite
- PBT and vPvB substances in accordance with REACH Annex XIII, including substances under investigation according to the ECHA PBT assessment list <https://echa.europa.eu/da/pbt>
- Per- and polyfluoroalkyl substances (PFAS)  
*PFASs are defined as fluorinated substances containing at least one fully fluorinated methyl or methylene carbon atom (without any H / Cl / Br / I atom attached to it), i.e., with a few listed exceptions, all chemicals with at least one perfluorinated methyl group (-CF<sub>3</sub>) or a perfluorinated the methylene group (-CF<sub>2</sub>-) is a PFAS as described in the OECD recommendations.*
- Phthalates (i.e., esters of phthalic acid CAS No. 88-99-3)
- Potential or identified endocrine disruptors, according to any of the following EU member state initiative "Endocrine Disruptor Lists" List I, II and III

*N.B. A substance which is transferred to one of the corresponding sublists called "Substances no longer on list" and no longer appears on any of List I-III, is no longer excluded. The exemption is those substances on sublist II which were evaluated*

<sup>2</sup> EC/List No. 201-245-8 (BPA), 201-025-1 (BPB), 401-720-1 (4,4'-Isobutylethylidenediphenol), 216-036-7 (BPAF) and its 8 salts (278-305-5; 425-060-9; 443-330-4; 468-740-0; 469-080-6; 479-100-5; 943-265-6; 947-368-7), 201-250-5 (BPS), 201-240-0 (BPC), 204-279-1 (TBMD), 201-618-5 (6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol), 242-895-2, 248-607-1, 405-520-5 (D8), 217-121-1 (DAB), 227-033-5 (TMBPA), 210-658-2 (BPF), 411-570-9, 277-962-5 (contains BPS), 500-086-4 (contains BPA), 500-263-6 (contains BPA), 500-607-5 (contains BPA), 701-362-9, 904-653-0 (contains BPA), 908-912-9 (contains BPF), 926-571-4 (contains BPA), 931-252-8 (contains BPA), 941-992-3 (contains BPS), 943-503-9 (contains BPA).

[1] Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section 2.1: Bisphenols for which further EU RRM is proposed <https://echa.europa.eu/documents/10162/5e60f2fe-12d0-7f6b-5868-f199cfd7f984>

*and where concern for endocrine disruption may still remain. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated on sublist II.*

- Quaternary ammonium compounds, which are not aerobically or anaerobically biodegradable\* such as DTDMAC (CAS No. 61789-80-8), DSDMAC (CAS No. 107-64-2), DHTDMAC (CAS No. 61789-72-8) and DADMAC (CAS No. 7398-69-8).

*\* According to test method 301 (A-F) or 310 in OECD guidelines for testing of chemicals or other equivalent methods evaluated by an independent body and controlled by Nordic Ecolabelling.*

- Siloxanes D4, D5, D6 and HMDS
- Substances on the REACH Candidate list of SVHC substances  
<https://www.echa.europa.eu/candidate-list-table>

† Appendix 1 or equivalent declaration from the manufacturer of the product.

† Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## O10 Microplastics

Microplastics\* must not be present as ingoing substances in the product and must not be added to the product during manufacturing.

Nordic Ecolabelling reserves the right to change the requirement when more guidance from the EU on the restriction of synthetic polymer microparticles in REACH is published.

*\* 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".

† Appendix 1 or equivalent declaration from the manufacturer of the product.

† Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## O11 Nanomaterials

Nanomaterials/-particles\* must not be added or be present in the product.

\* *Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01): 'Nanomaterial' means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:*

(a) *one or more external dimensions of the particle are in the size range 1 nm to 100 nm;*

(b) *the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;*

(c) *the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.*

† Appendix 1 or equivalent declaration from the manufacturer of the product.

† Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## 4.3 Biodegradability and aquatic toxicity

### O12 Long-term environmental effects

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

$M \cdot 100 \cdot C_{H410} + 10 \cdot C_{H411} + C_{H412} < LV_{H410 / H411 / H412}$ , where M is the multiplying factor for H410 as described in the CLP Regulation (EC) No 1272/2008.

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

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

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

$LV_{H410 / H411 / H412}$  = Limit value for ingoing substances which are classified as H410, H411 or H412 in grams / litre in-use solution.

Limit values per product type are given in the table below.

**Table 3 Limit values per product type**

Product type	LV <sub>H410/H411/H412</sub> (grams / litre in-use solution)
Water-based products	40
CIP, component cleaning agents	10
Solvent-based products (ready-to-use)	40
Graffiti removers	10
Cleaners for solar modules	10

*The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet.*

*See additional information concerning calculations with UCVB substances in section 4.1 Definition of ingoing substances and impurities.*

*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.*

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

- † Appendix 1 or equivalent declaration from the manufacturer of the product.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.
- † Calculation to show that the requirement is fulfilled. Nordic Ecolabelling's calculation sheet for Industrial cleaning and degreasing agents can be used. It is available from Nordic Ecolabelling's websites.

## O13 Biodegradability

### Cleaners for solar modules

The use of organic substances that are aerobically non-biodegradable (aNBO) is not permitted.

The quantity of organic substances that are anaerobically non-biodegradable (anNBO) must not exceed 0.6 g/ litre in-use solution.

### Other products

The quantity of organic substances that are aerobically non-biodegradable (aNBO) must not exceed 0.6 g/ litre in-use solution.

The quantity of organic substances that are anaerobically non-biodegradable (anNBO) must not exceed 0.6 g/ litre in-use solution.

*The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet.*

*See additional information concerning calculations with UCVB substances in section 4.1 Definition of ingoing substances and impurities.*

*Please note that all surfactants must be aerobically and anaerobically biodegradable under requirement O4 (Surfactants).*

*See also the exemption from the requirement of anaerobic biodegradability for substances which are not surfactants in Appendix 3, item 7, Anaerobic degradation.*

- † Reference to the DID list, version 2023 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 the product's content of organic substances that are either not aerobically or anaerobically biodegradable. Nordic Ecolabelling's calculation sheet for Industrial cleaning and degreasing agents can be used. It is available from Nordic Ecolabelling's websites.

## O14 Critical dilution volume (CDV)

The critical dilution volume (CDV) of the product must not exceed the following limit values.

**Table 4 Limit values per product type**

Product type	CDV <sub>chronic</sub> (litres/in-use solution)
Water-based products	300 000
CIP, component cleaning agents	50 000
Solvent-based products (ready-to-use)	400 000
Graffiti removers	600 000
Cleaners for solar modules	20 000

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

$$CDV_{\text{chronic}} = \sum CDV_i = \sum (\text{dose}_i \times DF_i \times 1000 / TF_i \text{ chronic}), \text{ where}$$

dose<sub>i</sub> = the input quantity of the individual substance in g/ litre of in-use solution

DF<sub>i</sub> = biodegradation factor for substance "i", in accordance with the DID list

TF<sub>i</sub> chronic = chronic toxicity factor for substance "i", in accordance with the DID list

If TF<sub>i</sub> chronic is lacking, TF<sub>i</sub> acute can be used.

*The calculation must be based on the highest recommended dosing stated on the product label or accompanying product sheet.*

*See additional information concerning calculations with UCVB substances in section 4.1 Definition of ingoing substances and impurities.*

- † Reference to the DID list, version 2023 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 the product's CDV<sub>chronic</sub>. Nordic Ecolabelling's calculation sheet can be used. It is available from Nordic Ecolabelling's websites.
- † Appendix 2 or equivalent declaration from the manufacturer/supplier of each raw material.

## 4.4 Performance

The product must demonstrate satisfactory efficacy for its intended areas of use at the specified dosage. This can be documented either through a user test (alternative A) or a laboratory test (alternative B).

### O15 Performance

#### Alternative A

The product's efficacy must be documented through a user test that meets the requirements outlined below:

- The product must have been used by at least five independent users within its area of application over a period that reflects the product's usage frequency (i.e., the product must have been used repeatedly).
- The product must be tested at the dosage recommended on the product label or accompanying product sheet.
- At least 80% of the users must rate the product as either sufficiently effective or very effective.
- The users must complete Appendix 4. All completed appendices must be submitted to Nordic Ecolabelling.
- A test report detailing the user test, including a summary of the results, must be prepared.

† Appendix 4 from all users who have tested the product.

† Test report describing the user test, including summary of the results.

#### Alternative B

The product's efficacy must be documented through a laboratory test that meets the requirements outlined in Appendix 5. Alternative tests may be used, provided they are well-documented, thoroughly described, and approved by Nordic Ecolabelling. The product's efficacy must be assessed to be equal to or better than the reference product it is compared with, as well as better than water.

*If alternative tests are used, the test descriptions must be approved by Nordic Ecolabelling prior to testing.*

*A reference product refers to an established product already on the market, designed for the same applications as the product being tested.*

† Appendix 5 or equivalent declaration completed and signed.

† Foto documentation of visual assessment.

† Analysis/test results.

† If alternative tests are used: The test descriptions.

## 4.5 Packaging and user information

### O16 User information

The product label or accompanying product sheet must include the information below.

- Product type and area of use.  
*The product's area of use must align with the application for which it was tested in requirement O13 (Performance).*
- For products that require dilution before use: Recommended dosage for regular use and typical soiling.  
*The recommended dosage must be stated in units such as dl or ml per liters. The dosing is for example equivalent to x pumps, or y caps per z liters water.*
- Description of how the user can avoid coming into contact with the product, for example, by using personal protective equipment.
- For products considered as environmentally hazardous waste after use: A statement that the product should be disposed of accordingly.
- For graffiti removers: Remediated paint is considered as environmentally hazardous waste and must be strictly handled to ensure it is not discharged into recipients or the municipal sewage system.
- For solvent-based products: Health and safety instructions emphasizing the importance of ventilation during use of the product. See also requirement O7 (Volatile organic compounds (VOC)).
- For offshore products: The intended area of use, including a prohibition against use in coastal areas, watercourses, or lakes, including freshwater and brackish regions such as the Baltic Sea. See also requirement O8 (Phosphorus).

† A copy of the label or accompanying product sheet.

### O17 Packaging

Packaging up to 20 litres must consist of either PE, PP or PET according to the following requirements.

#### **PE and PP packaging**

- The container and closure\* must be made of minimum: 99% polyethene (PE) or 95 % polypropene (PP).  
*The remaining % must not be of biodegradable or any other material than PE or PP.*
- Colours: Carbon black pigments must not be added to the packaging.
- Labels: Must be made of the same material as of the packaging component they are placed on.

#### **PET packaging**

- The container and closure\* must be made of minimum: 98% polyethylene terephthalate (PET).
- Colours: Transparent and translucent colours without carbon black are allowed.

- Labels: Must be made of PE or PP.
  - The label must not cover more than 50% of the packaging surface for sizes ≤ 500 ml and 70% for sizes > 500 ml.  
*\* Exemption: Membranes, oblates and seals may be made of expanded polyethylene (EPE), expanded polypropylene (EPP), thermoplastic elastomer (TPE) based on styrene-ethylene-butylene-styrene thermoplastic elastomer (SEBS), aluminium, paper and plastic of non-monomaterial (but it must be PE, PP and / or PET).*
- † Appendix 6 or equivalent declaration completed and signed.
- † For labels on PET packaging: Calculation of label size compared to the surface of the container. Nordic Ecolabelling's calculation sheet can be used. It is available from Nordic Ecolabelling's websites.

## 4.6 Licence maintenance

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

### O18 Customer complaints

The licensee must guarantee that the quality of the Nordic Swan Ecolabel product or service does not deteriorate during the validity period of the licence. Therefore, the licensee must keep an archive over customer complaints.

Note that the original routine must be in one Nordic language or in English.

- † Upload your company's routine for handling and archiving customer complaints.

### O19 Traceability

The licensee must be able to trace the Nordic Swan Ecolabel products in the production. A manufactured / sold product should be able to trace back to the occasion (time and date) and the location (specific factory) and, in relevant cases, also which machine / production line where it was produced. In addition, it should be possible to connect the product with the actual raw material used.

You can upload your company's routine or a description of the actions to ensure traceability in your company.

- † Please upload your routine or a description.

## 5 Criteria version history

Nordic Ecolabelling adopted version 4.0 of the criteria for Industrial cleaning and degreasing agents 12 September 2025. The criteria are valid until 28 February 2030.

On 10 February 2026, Nordic Ecolabelling adopted an adjustment of requirement O7 (Volatile organic compounds (VOC)), allowing the use of organic solvents and volatile organic compounds with a vapour pressure of < 0.1 kPa at 20°C in graffiti removers.

## 6 How to apply and regulations for the Nordic Ecolabelling

### **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 the beginning of this document.

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

### **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 prolonged or adjusted, in which case the licence is automatically prolonged, 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 on-site inspection visit/-s 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 info in the beginning of this document. Further information and assistance (such as calculation sheets or electronic application help) is available. Visit the relevant national website for further information.

### **Follow-up inspections**

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

### **Regulations for the Nordic Ecolabelling of products**

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

More information on graphical guidelines, regulations and fees can be found at [www.nordic-swan-ecolabel.org/regulations](http://www.nordic-swan-ecolabel.org/regulations)

## Appendix 1 Declaration from the manufacturer of the industrial cleaning and degreasing agent

To be submitted with an application for a Nordic Swan Ecolabel licence of industrial cleaning and degreasing agents.

This declaration is based on the best available knowledge at the time of the application, including test results and/or declarations from raw material manufacturers. It is subject to change if new information or scientific findings become available. In such cases, an updated declaration must be submitted.

Product name:	
Product type and area of use:	
Product category (tick the box):	
Water-based products	<input type="checkbox"/>
CIP, component cleaning agents	<input type="checkbox"/>
Solvent-based products (ready-to-use)	<input type="checkbox"/>
Graffiti removers	<input type="checkbox"/>
Cleaners for solar modules	<input type="checkbox"/>

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

- Ingoing substances:** All substances\* in the product including additives (e.g. preservatives and stabilisers) from the raw materials. Substances released from ingoing substances (e.g. biocidal active substances generated by preservatives, such as formaldehyde) are also regarded as ingoing substances.

*\* N.B. the difference from the definition of substances in the REACH Regulation (EC) No 1907/2006. Whereas a REACH substance encompasses a chemical element or compound as well as its stabilising additives and process impurities, a substance here refers to each of the constituents separately. The constituents of a UVCB substance (Unknown or Variable composition, Complex reaction products or of Biological materials) are also regarded separately, and all known constituents shall be regarded.*

- **Impurities:** Trace levels of pollutants, contaminants and residues from production, incl. production of raw materials that remain in the product in concentrations  $\leq 100$  ppm ( $\leq 0.0100$  w%). For formaldehyde other than as a biocidal active substance and for arylamine, the corresponding concentration is  $\leq 50$  ppm ( $\leq 0.0050$  w%).

*Examples of impurities: Background environmental pollutants from feedstock, as well as contaminants and residues from production such as reactants (incl. monomers), reagents, catalysts, by-products, scavengers, detergents for production equipment, carry-over from other or previous production lines.*

- **Impurities in the raw materials** in concentrations  $\geq 10\,000$  ppm ( $\geq 1.0000$  w%) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

### **Additional information concerning definitions of ingoing substances and impurities**

*Limit values:* The limit for excluded ingoing substances is 0 ppm (unless otherwise stated), while there's a specific defined limit for impurities. The impurity limit applies separately to each individual excluded substance, from each individual raw material. Concentrations of different impurities with the same excluded classification or substance group characteristics shall not be summed up to meet the impurity limit in the labelled product. Also, concentrations of an individual impurity, originating from different raw materials, shall not be summed.

*UVCB substances:* UVCB substances (Unknown or Variable composition, Complex reaction products or of Biological materials) have a composition of constituents that is not completely known or is variable from time to time. For UVCB substances, all constituents that are known must be declared in the Nordic Swan Ecolabel raw material appendix based on the best available knowledge. All constituents are considered individually and are subject to the chemical requirements, including for instance those on excluded substances and excluded classifications.

However, in the requirements concerning environmentally hazardous substances, aNBO, anNBO and CDV, the UVCB substance can be considered as one ingoing substance and placed in a single row in the calculation sheet. If the UVCB substance can be assigned a DID-number, the data on the DID-list must be used.

<b>O2 Classification of the product</b>		
Is the product classified with any of the hazard phrases below? <i>Incl. all classification variants. For example, H350 also covers classification H350i.</i>	Yes	No
If the answer to all the classifications below is No, mark here		
Carc. 1A or 1B H350		
Carc. 2 H351		
Muta. 1A or 1B H340		
Muta. 2 H341		
Repr. 1A or 1B H360		
Repr. 2 H361		
Lact. H362		
Resp. Sens. 1, 1A or 1B H334		
Skin Sens. 1, 1A or 1B H317		
Acute Tox. 1 or 2 H300		
Acute Tox. 1 or 2 H310		
Acute Tox. 1 or 2 H330		
Acute Tox. 3 H301		
Acute Tox. 3 H311		
Acute Tox. 3 H331		
Acute Tox. 4 H302		
Acute Tox. 4 H312		
Acute Tox. 4 H332		
Aquatic Acute 1 H400		
Acute Chronic 1 H410		
Aquatic Chronic 2 H411		
Aquatic Chronic 3 H412		
Aquatic Chronic 4 H413		
Ozone H420		
STOT SE 1 H370		
STOT SE 2 H371		
STOT RE 1 H372		
STOT RE 2 H373		

Asp. Tox. 1 H304		
Flam. Aer. 1 H222		
Flam. Liq. 1 H224		
ED HH 1 EUH380		
ED HH 2 EUH381		
ED ENV 1 EUH430		
ED ENV 2 EUH431		
PBT EUH440		
vPvB EUH441		
PMT EUH450		
vPvM EUH451		

### O3 Classification of ingoing substances

Does the product contain substances classified with any of the hazard phrases below? <i>Incl. all classification variants. For example, H350 also covers classification H350i.</i>	Yes	No
If the answer to all the classifications below is No, mark here		
Carc. 1A or 1B H350		
Carc. 2 H351		
Muta. 1A or 1B H340		
Muta. 2 H341		
Repr. 1A or 1B H360		
Repr. 2 H361		
Lact. H362		
Resp. Sens. 1, 1A or 1B H334		
Skin Sens. 1, 1A or 1B H317		
STOT RE 1 H372		
Ozone H420		
ED HH 1 EUH380		
ED HH 2 EUH381		
ED ENV 1 EUH430		
ED ENV 2 EUH431		
PBT EUH440		
vPvB EUH441		

PMT EUH450		
vPvM EUH451		

### O5 Preservatives

	Yes	No
Does the product contain preservatives?		
If yes, state the BCF (Bioconcentration Factor) and/or log Kow (octanol-water partition coefficient):		

### O6 Organic colorants

	Yes	No
Does the product contain organic colorants?		
If yes, state the BCF (Bioconcentration Factor) and/or log Kow (octanol-water partition coefficient):		
If the colorant is approved for use in food, state the E-number:		

### O7 Volatile organic compounds (VOC)

	Yes	No
Does the product contain volatile organic compounds*? <i>Volatile organic compounds (VOCs) are organic compounds with a vapor pressure of 0.01 kPa or more at 293.15 K (20°C).</i>		
If yes, what is the wt%?		

O8 Phosphorus		
	Yes	No
Does the product contain phosphorus?		

O9 Excluded substances		
Does the product contain any of the following substances?	Yes	No
Alkylphenols (AP) (e.g. butylated hydroxy anisole (BHA, CAS No. 25013-16-5), alkylphenol ethoxylates (APEO), and other alkylphenol derivatives (APD))		
Aminopolyphosphonates		
Aromatic solvents <i>Solvents are defined as in Commission Directive 1999/13/EC: organic substances with a vapour pressure of at least 0.01 kPa at 20 °C.</i>		
Benzalkonium chloride (CAS No. 63449-41-2)		
Bisphenols and bisphenol derivatives, defined as the 34 bisphenols that have been identified by ECHA <sup>3</sup> for further EU regulatory risk management because they are known or potential endocrine disruptors for the environment or for human health, or can be identified as toxic for reproduction		
Boric acid, borates, and perborates		
Ethylenediamine tetraacetate (EDTA, CAS No. 6381-92-6) and its salts and diethylenetriamine pentaacetate (DTPA, CAS No. 67-43-6) and its salts		
Fragrances		
Halogenated organic compounds		
Isothiazolinones (e.g. methylisothiazolinone (MIT), CAS No. 2682-20-4, methylchloroisothiazolinone (CMIT), CAS No. 26172-55-4, C(M)IT/MIT (3:1), CAS No. 55965-84-9, benzisothiazolinone (BIT), CAS No. 2634-33-5, octylisothiazolinone (OIT), CAS No. 26530-20-1 and dichlorooctylisothiazolinone (DCOIT), CAS No. 64359-81-5)		
LAS (linear alkylbenzene sulphonates)		
NTA (nitrilotriacetic acid, CAS-no. 139-13-9) and its salts		
Organic chlorine compounds, hypochlorous acid and hypochlorite		
PBT and vPvB substances in accordance with REACH Annex XIII, including substances under investigation according to the ECHA PBT assessment list <a href="https://echa.europa.eu/da/pbt">https://echa.europa.eu/da/pbt</a>		
Per- and polyfluoroalkyl substances (PFAS) <i>PFASs are defined as fluorinated substances containing at least one fully fluorinated methyl or methylene carbon atom (without any H / Cl / Br / I atom attached to it), i.e., with a few listed exceptions, all chemicals with at least one perfluorinated methyl group (-CF3) or a perfluorinated the methylene group (-CF2-) is a PFAS as described in the OECD recommendations.</i>		
Phthalates (i.e., esters of phthalic acid CAS No. 88-99-3)		

<sup>3</sup> EC/List No. 201-245-8 (BPA), 201-025-1 (BPB), 401-720-1 (4,4'-Isobutylethylidenediphenol), 216-036-7 (BPAF) and its 8 salts (278-305-5; 425-060-9; 443-330-4; 468-740-0; 469-080-6; 479-100-5; 943-265-6; 947-368-7), 201-250-5 (BPS), 201-240-0 (BPC), 204-279-1 (TBMD), 201-618-5 (6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol), 242-895-2, 248-607-1, 405-520-5 (D8), 217-121-1 (DAB), 227-033-5 (TMBPA), 210-658-2 (BPF), 411-570-9, 277-962-5 (contains BPS), 500-086-4 (contains BPA), 500-263-6 (contains BPA), 500-607-5 (contains BPA), 701-362-9, 904-653-0 (contains BPA), 908-912-9 (contains BPF), 926-571-4 (contains BPA), 931-252-8 (contains BPA), 941-992-3 (contains BPS), 943-503-9 (contains BPA).

[1] Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section 2.1: Bisphenols for which further EU RRM is proposed <https://echa.europa.eu/documents/10162/5e60f2fe-12d0-7f6b-5868-f199cfd7f984>

Potential or identified endocrine disruptors, according to any of the following EU member state initiative "Endocrine Disruptor Lists" List I, II and III <i>N.B. A substance which is transferred to one of the corresponding sublists called "Substances no longer on list" and no longer appears on any of List I-III, is no longer excluded. The exemption is those substances on sublist II which were evaluated and where concern for endocrine disruption may still remain. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated on sublist II.</i>		
Quaternary ammonium compounds, which are not aerobically or anaerobically biodegradable** such as DTDMAC (CAS No. 61789-80-8), DSDMAC (CAS No. 107-64-2), DHTDMAC (CAS No. 61789-72-8) and DADMAC (CAS No. 7398-69-8). <i>** According to test method 301 (A-F) or 310 in OECD guidelines for testing of chemicals or other equivalent methods evaluated by an independent body and controlled by Nordic Ecolabelling.</i>		
Siloxanes D4, D5, D6 and HMDS		
Substances on the REACH Candidate list of SVHC substances <a href="https://www.echa.europa.eu/candidate-list-table">https://www.echa.europa.eu/candidate-list-table</a>		

O10 Microplastics		
	Yes	No
Does the product contain polymers?  _____		
<p>If yes, does the product contain polymers that are defined as microplastics*?</p> <p>If the product contains polymers that are not defined as microplastics*, please state how the polymers are excluded from the definition (please include test methods and results if relevant):</p> <p><i>*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:</i></p> <ul style="list-style-type: none"> <li>a) <i>are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles.</i></li> <li>b) <i>at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions:</i> <ul style="list-style-type: none"> <li>(i) <i>all dimensions of the particles are equal to or less than 5 mm.</i></li> <li>(ii) <i>the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.</i></li> </ul> </li> </ul> <p><i>The following polymers are excluded from this designation:</i></p> <ul style="list-style-type: none"> <li>a) <i>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.</i></li> <li>b) <i>polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].</i></li> <li>c) <i>polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16 [to REACH, Regulation (EC) No 1907/2006].</i></li> <li>d) <i>polymers that do not contain carbon atoms in their chemical structure.</i></li> </ul> <p><i>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".</i></p>		

<b>O11 Nanomaterials</b>		
	Yes	No
<p>Does the product contain nanomaterials/-particles?</p> <p><i>Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01): 'Nanomaterial' means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:</i></p> <p><i>(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;</i></p> <p><i>(b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;</i></p> <p><i>(c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.</i></p>		

<b>O12 Long-term environmental effects</b>		
	Yes	No
Does the product contain substances classified as H410, H411 or H412?		

If the answer to any of the above questions is Yes, please provide the following information for each relevant substance: CAS No. (where possible), chemical name, concentration (in ppm, % by weight or mg/kg). Also state whether the substance is present as an ingoing substance or impurity.

--

If the product composition changes, a new declaration confirming compliance with the requirements must be submitted to Nordic Ecolabelling.

<b>Place and date</b>	<b>Company name</b>
<b>Responsible person</b>	<b>Signature of responsible person</b>
<b>Telephone</b>	<b>Email</b>

## Appendix 2 Declaration from the manufacturer/supplier of the raw material to the industrial cleaning and degreasing agent

To be submitted with an application for a Nordic Swan Ecolabel licence.

This declaration is based on the best available knowledge at the time of the application, including test results. If new information or scientific findings become available, please inform Nordic Ecolabelling and submit an updated declaration. For suppliers: If you do not have knowledge about the complete composition of the raw material/ingredient, you are obliged to obtain this information from the manufacturer.

<b>Manufacturer/Supplier</b>
<b>Trade name of the raw material</b>

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

- **Ingoing substances:** All substances\* in the product including additives (e.g. preservatives and stabilisers) from the raw materials. Substances released from ingoing substances (e.g. biocidal active substances generated by preservatives, such as formaldehyde) are also regarded as ingoing substances.

*\* N.B. the difference from the definition of substances in the REACH Regulation (EC) No 1907/2006. Whereas a REACH substance encompasses a chemical element or compound as well as its stabilising additives and process impurities, a substance here refers to each of the constituents separately. The constituents of a UVCB substance (Unknown or Variable composition, Complex reaction products or of Biological materials) are also regarded separately, and all known constituents shall be regarded.*

- **Impurities:** Trace levels of pollutants, contaminants and residues from production, incl. production of raw materials that remain in the product in concentrations  $\leq 100$  ppm ( $\leq 0.0100$  w%). For formaldehyde other than as a biocidal active substance and for arylamine, the corresponding concentration is  $\leq 50$  ppm ( $\leq 0.0050$  w%).

*Examples of impurities: Background environmental pollutants from feedstock, as well as contaminants and residues from production such as reactants (incl.*

*monomers), reagents, catalysts, by-products, scavengers, detergents for production equipment, carry-over from other or previous production lines.*

- **Impurities in the raw materials** in concentrations  $\geq 10\ 000$  ppm ( $\geq 1.0000$  w%) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.

### **Additional information concerning definitions of ingoing substances and impurities**

*Limit values:* The limit for excluded ingoing substances is 0 ppm (unless otherwise stated), while there's a specific defined limit for impurities. The impurity limit applies separately to each individual excluded substance, from each individual raw material. Concentrations of different impurities with the same excluded classification or substance group characteristics shall not be summed up to meet the impurity limit in the labelled product. Also, concentrations of an individual impurity, originating from different raw materials, shall not be summed.

*UVCB substances:* UVCB substances (Unknown or Variable composition, Complex reaction products or of Biological materials) have a composition of constituents that is not completely known or is variable from time to time. For UVCB substances, all constituents that are known must be declared in the Nordic Swan Ecolabel raw material appendix based on the best available knowledge. All constituents are considered individually and are subject to the chemical requirements, including for instance those on excluded substances and excluded classifications.

However, in the requirements concerning environmentally hazardous substances, aNBO, anNBO and CDV, the UVCB substance can be considered as one ingoing substance and placed in a single row in the calculation sheet. If the UVCB substance can be assigned a DID-number, the data on the DID-list must be used.

Please list the ingoing substances in the raw material in the table below and indicate 'yes' or 'no' as to whether each substance is considered a UVCB substance.

If the raw material contains impurities that are listed under excluded substances or has any of the classifications mentioned in this appendix, write the amount in the box at the end of the appendix. The manufacturer of the Nordic Swan Ecolabelled product is responsible for calculating compliance with the requirements of the criteria.

Name of raw material ingredient	Chemical name	CAS No.	Amount in weight %	Function of the raw material/ingredient	Suggested DID No.	UVCB substance?

**Please note that:**

The DID-list (Detergents Ingredients Database) is available on the Nordic Ecolabelling websites.

DID-list Part A: [https://www.svanen.se/49baaa/siteassets/att-svanenmarka/kriterier/did-listan/did\\_list\\_2023.pdf](https://www.svanen.se/49baaa/siteassets/att-svanenmarka/kriterier/did-listan/did_list_2023.pdf)

DID-list part B: [https://www.svanen.se/49bfd4/siteassets/att-svanenmarka/kriterier/did-listan/didlist\\_2023\\_partb.pdf](https://www.svanen.se/49bfd4/siteassets/att-svanenmarka/kriterier/did-listan/didlist_2023_partb.pdf)

Substances defined as surfactants according to the Detergent Regulation (EC) No 648/2004, must always be reported with the function "surfactant".

The information provided in this declaration will be shared internally with the Nordic Ecolabelling certification personnel for the purpose of evaluating license applications.

<b>O3 Classification of ingoing substances</b>		
Does the raw material contain substances classified with any of the hazard phrases below? <i>Incl. all classification variants. For example, H350 also covers classification H350i.</i>	Yes	No
If the answer to all the classifications below is No, mark here		
Carc. 1A or 1B H350		
Carc. 2 H351		
Muta. 1A or 1B H340		
Muta. 2 H341		
Repr. 1A or 1B H360		
Repr. 2 H361		
Lact. H362		
Resp. Sens. 1, 1A or 1B H334		
Skin Sens. 1, 1A or 1B H317		
STOT RE 1 H372		
Ozone H420		
ED HH 1 EUH380		
ED HH 2 EUH381		
ED ENV 1 EUH430		
ED ENV 2 EUH431		
PBT EUH440		
vPvB EUH441		
PMT EUH450		
vPvM EUH451		

O5 Preservatives		
	Yes	No
Does the raw material contain preservatives?		
If yes, state the BCF (Bioconcentration Factor) and/or log Kow (octanol-water partition coefficient):		

O6 Organic colorants		
	Yes	No
Does the raw material contain organic colorants?		
If yes, state the BCF (Bioconcentration Factor) and/or log Kow (octanol-water partition coefficient):		
If the colorant is approved for use in food, state the E-number:		

O7 Volatile organic compounds (VOC)		
	Yes	No
Does the raw material contain volatile organic compounds*? <i>Volatile organic compounds (VOCs) are organic compounds with a vapor pressure of 0.01 kPa or more at 293.15 K (20°C).</i>		
If yes, what is the wt%?		

O8 Phosphorus		
	Yes	No
Does the raw material contain phosphorus?		
If yes, state the amount of phosphorus (%):		

O9 Excluded substances		
	Yes	No
Does the raw material contain any of the following substances?		
Alkylphenols (AP) (e.g. butylated hydroxy anisole (BHA, CAS No. 25013-16-5), alkylphenol ethoxylates (APEO), and other alkylphenol derivatives (APD)		
Aminopolyphosphonates		
Aromatic solvents <i>Solvents are defined as in Commission Directive 1999/13/EC: organic substances with a vapour pressure of at least 0.01 kPa at 20 °C.</i>		
Benzalkonium chloride (CAS No. 63449-41-2)		

Bisphenols and bisphenol derivatives, defined as the 34 bisphenols that have been identified by ECHA <sup>4</sup> for further EU regulatory risk management because they are known or potential endocrine disruptors for the environment or for human health, or can be identified as toxic for reproduction		
Boric acid, borates, and perborates		
Ethylenediamine tetraacetate (EDTA, CAS No. 6381-92-6) and its salts and diethylenetriamine pentaacetate (DTPA, CAS No. 67-43-6) and its salts		
Fragrances		
Halogenated organic compounds		
Isothiazolinones (e.g. methylisothiazolinone (MIT), CAS No. 2682-20-4, methylchlorisothiazolinone (CMIT), CAS No. 26172-55-4, C(M)IT/MIT (3:1), CAS No. 55965-84-9, benzisothiazolinone (BIT), CAS No. 2634-33-5, octylisothiazolinone (OIT), CAS No. 26530-20-1 and dichlorooctylisothiazolinone (DCOIT), CAS No. 64359-81-5)		
LAS (linear alkylbenzene sulphonates)		
NTA (nitrilotriacetic acid, CAS-no. 139-13-9) and its salts		
Organic chlorine compounds, hypochlorous acid and hypochlorite		
PBT and vPvB substances in accordance with REACH Annex XIII, including substances under investigation according to the ECHA PBT assessment list <a href="https://echa.europa.eu/da/pbt">https://echa.europa.eu/da/pbt</a>		
Per- and polyfluoroalkyl substances (PFAS) <i>PFASs are defined as fluorinated substances containing at least one fully fluorinated methyl or methylene carbon atom (without any H / Cl / Br / I atom attached to it), i.e., with a few listed exceptions, all chemicals with at least one perfluorinated methyl group (-CF<sub>3</sub>) or a perfluorinated the methylene group (-CF<sub>2</sub>-) is a PFAS as described in the OECD recommendations.</i>		
Phthalates (i.e., esters of phthalic acid CAS No. 88-99-3)		
Potential or identified endocrine disruptors, according to any of the following EU member state initiative "Endocrine Disruptor Lists" List I, II and III <i>N.B. A substance which is transferred to one of the corresponding sublists called "Substances no longer on list" and no longer appears on any of List I-III, is no longer excluded. The exemption is those substances on sublist II which were evaluated and where concern for endocrine disruption may still remain. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated on sublist II.</i>		
Quaternary ammonium compounds, which are not aerobically or anaerobically biodegradable** such as DTDMAC (CAS No. 61789-80-8), DSDMAC (CAS No. 107-64-2), DHTDMAC (CAS No. 61789-72-8) and DADMAC (CAS No. 7398-69-8). <i>** According to test method 301 (A-F) or 310 in OECD guidelines for testing of chemicals or other equivalent methods evaluated by an independent body and controlled by Nordic Ecolabelling.</i>		
Siloxanes D4, D5, D6 and HMDS		
Substances on the REACH Candidate list of SVHC substances <a href="https://www.echa.europa.eu/candidate-list-table">https://www.echa.europa.eu/candidate-list-table</a>		

<sup>4</sup> EC/List No. 201-245-8 (BPA), 201-025-1 (BPB), 401-720-1 (4,4'-Isobutylethylidenediphenol), 216-036-7 (BPAF) and its 8 salts (278-305-5; 425-060-9; 443-330-4; 468-740-0; 469-080-6; 479-100-5; 943-265-6; 947-368-7), 201-250-5 (BPS), 201-240-0 (BPC), 204-279-1 (TBMD), 201-618-5 (6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol), 242-895-2, 248-607-1, 405-520-5 (D8), 217-121-1 (DAB), 227-033-5 (TMBPA), 210-658-2 (BPF), 411-570-9, 277-962-5 (contains BPS), 500-086-4 (contains BPA), 500-263-6 (contains BPA), 500-607-5 (contains BPA), 701-362-9, 904-653-0 (contains BPA), 908-912-9 (contains BPF), 926-571-4 (contains BPA), 931-252-8 (contains BPA), 941-992-3 (contains BPS), 943-503-9 (contains BPA).

[1] Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section 2.1: Bisphenols for which further EU RRM is proposed <https://echa.europa.eu/documents/10162/5e60f2fe-12d0-7f6b-5868-f199cfd7f984>

O10 Microplastics		
	Yes	No
Does the raw material contain polymers?		
<p>If yes, does the raw material contain polymers that are defined as microplastics*?</p> <p>If the raw material contains polymers that are not defined as microplastics*, please state how the polymers are excluded from the definition (please include test methods and results if relevant):</p> <hr/> <hr/> <p><i>*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:</i></p> <ul style="list-style-type: none"> <li><i>a) are contained in particles and constitute at least 1% by weight of those particles; or build a continuous surface coating on particles.</i></li> <li><i>b) at least 1% by weight of the particles referred to in point (a) fulfil either of the following conditions:</i> <ul style="list-style-type: none"> <li><i>(i) all dimensions of the particles are equal to or less than 5 mm.</i></li> <li><i>(ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.</i></li> </ul> </li> </ul> <p><i>The following polymers are excluded from this designation:</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>b) polymers that are biodegradable as proved in accordance with Appendix 15 [to REACH, Regulation (EC) No 1907/2006].</i></li> <li><i>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].</i></li> <li><i>d) polymers that do not contain carbon atoms in their chemical structure.</i></li> </ul> <p><i>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".</i></p>		

<b>O11 Nanomaterials</b>		
	Yes	No
Does the raw material contain nanomaterials/-particles?		
<p><i>Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01): 'Nanomaterial' means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:</i></p> <p><i>(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;</i></p> <p><i>(b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;</i></p> <p><i>(c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.</i></p>		

<b>O12 Long-term environmental effects</b>		
	Yes	No
Does the raw material contain substances classified as H410, H411 or H412?		

If the answer to any of the above questions regarding ingoing substances or impurities is Yes, please provide the following information for each relevant substance: CAS No. (where possible), chemical name, concentration (in ppm, % by weight or mg/kg). Also state whether the substance is present as an ingoing substance or impurity.

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If the raw material composition changes, a new declaration confirming compliance with the requirements must be submitted to Nordic Ecolabelling.

<b>Place and date</b>	<b>Company name</b>
<b>Responsible person</b>	<b>Signature of responsible person</b>
<b>Telephone</b>	<b>Email</b>

## Appendix 3      Analysis and test laboratories

### **1A Requirements on the analysis laboratory for ecotoxic effects**

The analysis laboratory must be competent, impartial and shall fulfil the general requirements of standard EN ISO 17025 or have official GLP status.

### **1B Requirements on the analysis laboratory for performance**

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

The applicant's own laboratory, and external testing institutes that do not meet EN ISO 17025 or do not have official GLP status, may be approved to carry out performance tests. In this case, the following conditions must be met:

- The organisation must be ISO 9001 certified or certified according to the International Features Standards (IFS) standard for Household and Personal Care.
- The test laboratory must be covered by the certification, and the performance test must be included in the quality management system.
- Nordic Ecolabelling is to be given access to all the raw data from the performance test.

The applicant's own laboratory may be approved to carry out performance tests even if the test laboratory and the performance test are not covered by ISO 9001 or IFS standard for Household and Personal Care certification. The following conditions must be met:

- The organisation must have a quality assurance system and an ISO 9001 or IFS standard for Household and Personal Care certification. The laboratory and the performance test do not have to be within the certification, but it needs to be described in that system. Nordic Ecolabelling is to be given access to all the raw data from the performance test.
- The laboratory must document that the test method used is suitable for differentiating between different products, and that the results achieved are reproducible.
- It must be possible for Nordic Ecolabelling to come and observe the performance of a test.

## **2. Approved 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 and approved by Nordic Ecolabelling to ensure that the results are equivalent. The relevant test methods are stated in the below sections. Calculations from data models (such as BIOWIN) are accepted, if they are assessed by an independent body, but if the results of the model calculations are close

to the threshold values or if Nordic Ecolabelling has contradictory data, more certain information may be required.

### **3. Aquatic toxicity**

For acute aquatic toxicity, test methods no. 201, 202, 203, and 212 in the OECD Guideline are used. For chronic aquatic toxicity test methods no. 210, 211, 215 and 229 in the OECD Guideline are used. OECD 201 can be used as chronic test if chronic endpoints are chosen.

OECD test guideline no. 249 (acute toxicity – fish) can be used as an alternative to OECD test guideline no. 203, but only if toxicity data for crustaceans and algae is also available.

### **4. Bioaccumulation**

Unless otherwise proven, a substance is considered bioaccumulating if tested for bioaccumulation on fish according to method OECD 305 A-E or OECD 321 and its bioconcentration factor (BCF) is >500. If no BCF value has been determined, a substance is considered bioaccumulating if its logKow value  $\geq 4.0$  according to method 107, 117 or 123 in the OECD Guidelines for the Testing of Chemicals or equivalent method. If the maximum measured BCF  $\leq 500$ , the substance is not considered bioaccumulating even if logKow  $\geq 4.0$ .

OECD test method 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.

### **5. Aerobic biodegradability**

For aerobic biodegradability test method no. 301 (A to F), 306 or 310 in the OECD Guidelines are used.

### **6. Potential aerobic biodegradability**

For potential (inherently) biodegradability test method no. 302 (A to C) in the OECD Guidelines are used.

### **7. Anaerobic biodegradability**

For anaerobic degradability test method no. 311 in the OECD Guidelines, ISO 11734, or ECOTOC no. 28 (June 1988) are used.

Substances that are not surfactants and which are not included in the DID-list or for which data is missing on DID-list list may be exempt from the requirements on anaerobic degradability if they fulfil all the following requirements:

- Not toxic to aquatic organisms (NOEC/ECx > 0.1 mg/l or E/LC50 > 10 mg/l)
- Readily aerobically biodegradable
- Have low adsorption (A < 25%) or high desorption (D > 25%) or are not bioaccumulating

Testing for adsorption/desorption can be carried out under OECD guidelines 106 or under ISO 18749” Water quality - Adsorption of substances on activated sludge - Batch test using specific analytical methods”.

## **8. DID-list**

The DID-list, Detergent Ingredient Database has been developed to facilitate the ecolabel application process and is a tool to rank chemicals and thus make it easier for licence holders and producers to choose less environmentally harmful chemicals in their products. The list contains information on toxicity and degradability of several substances that are used in chemical products.

The substances on the DID-list cannot be seen as an overview of substances that are contained in ecolabelled products, and 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 DID-list can be obtained from the ecolabelling organisation or the website of the respective country. If a substance is not included on the DID-list, or biodegradability data is missing, the methods described in part B of the DID-list must be used. For these criteria, the DID-list dated 2023 or later versions apply.

## Appendix 4 User test form

This appendix must be filled in by the user.

### Information about the product

<b>Product name:</b>	
<b>Manufacturer:</b>	
<b>Product type and area of use:</b>	
<b>Product category (tick the box):</b>	
Water-based products	<input type="checkbox"/>
CIP, component cleaning agents	<input type="checkbox"/>
Solvent-based products (ready-to-use)	<input type="checkbox"/>
Graffiti removers	<input type="checkbox"/>
Cleaners for solar modules	<input type="checkbox"/>

### Information about the test

The product must be tested within its area of application over a period that reflects the product's usage frequency (i.e., the product must have been used repeatedly).

The product must be tested at the dosage recommended on the product label or accompanying product sheet.

<b>Dosage (g/litre in-use-solution)</b>	
<b>Is the product tested at the dosage recommended on the product label or accompanying product sheet?</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Test period</b>	Start date: End date:
<b>How many times has the product been tested in the stated test period?</b>	

**Performance of the product**

The performance of the product must be visually assessed upon completion of the defined test period. Its performance is considered to be:

Not effective / not satisfactory	<input type="checkbox"/>
Sufficiently effective / sufficiently satisfactory	<input type="checkbox"/>
Very effective / very satisfactory	<input type="checkbox"/>

Other comments to the assessment of the product:

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**Information about the site of testing performance**

<b>Place and date</b>	<b>Company name</b>
<b>Responsible person</b>	<b>Signature of responsible person</b>
<b>Telephone</b>	<b>Email</b>

## Appendix 5      Laboratory test

This appendix outlines the framework for a laboratory test designed to evaluate the efficacy of industrial cleaning and degreasing agents. Alternative tests may be used, provided they are well-documented, thoroughly described, and approved by Nordic Ecolabelling prior to testing.

### **Laboratory test**

The test product, reference product, and water must be tested using the same method, temperature, and soil type relevant to the product's area of application.

The test must be performed with at least five replicates for both the test product, the reference product, and water.

The results should demonstrate that the test product's efficacy is equal to or better than the reference product it is compared with, as well as better than water.

### **Reference product**

The reference product should be an established product already on the market, designed for the same applications as the product being tested.

### **Dosage**

The test must be conducted using the lowest recommended dosage for normal dirt, applicable to both the test product and the reference product.

### **Dirt**

The dirt used must be relevant to the product's intended area of application.

### **Surfaces**

The surfaces used for testing must be relevant to the intended area of application for which the product is marketed.

### **Performing the test**

The test must be performed with at least five replicates for the test product, the reference product, and water.

Relevant contamination is applied to the test surface prior to applying the test product, reference product, and water.

### Duration of the test

The duration of the test should be selected from one of the following options:

1. The time specified by the manufacturer in relation to the dosage. The product's efficacy is assessed after the manufacturer-recommended time has elapsed.

or

2. The efficacy of the product is assessed at regular intervals (e.g., after 1, 3, 5, 7 minutes, etc.). It should be recorded whether the test product performs as well as or better than the reference product throughout the test. When either the test product or the reference product demonstrates the desired effect, the assessment and corresponding time (in minutes) should be noted.

### Assessment of product

After completing the test, the efficacy of the test product should be compared to that of the reference product and water. The assessment can be based on visual or instrumental measurements (e.g., reflection or gravimetric).

If the test product is found to be less effective than the reference product after the designated assessment period (e.g., after a specified number of minutes), it should be considered "less effective than the reference product" and thus not satisfactory.

If an alternative evaluation method is more suitable for the product than continuous assessment or evaluation after a specific duration, it may be used. The rationale for selecting this method should be clearly explained, and the method must be described in detail.

### Information about the product

<b>Product name:</b>	
<b>Manufacturer:</b>	
<b>Product type and area of use:</b>	
<b>Product category (tick the box):</b>	
Water-based products	<input type="checkbox"/>
CIP, component cleaning agents	<input type="checkbox"/>
Solvent-based products (ready-to-use)	<input type="checkbox"/>
Graffiti removers	<input type="checkbox"/>
Cleaners for solar modules	<input type="checkbox"/>

## Test conditions

Description of the test conditions applied during the evaluation of the product's efficacy.

<b>Test method:</b>	<input type="checkbox"/> As described in this appendix. <input type="checkbox"/> Other method. Specify:
<b>Performing the test:</b>	Describe how the test is performed:
<b>Reference product</b>	
<b>Name:</b>	
<b>Area of application:</b>	
<b>Lowest recommended dosage:</b>	
<b>Time:</b>	<input type="checkbox"/> Recommended by producer: _____ minutes <input type="checkbox"/> Ongoing
<b>Test product:</b>	
<b>Area of application:</b>	
<b>Lowest recommended dosage:</b>	
<b>Time:</b>	<input type="checkbox"/> Recommended by producer: _____ minutes <input type="checkbox"/> Ongoing
<b>Dirt (description):</b>	
<b>Test surface:</b>	

## Test results

Description of the method used to evaluate the product's efficacy.

<b>Assessment method:</b>	<input type="checkbox"/> As described in this appendix. <input type="checkbox"/> Other method. Specify:
<b>Time:</b>	Product was assessed after: <input type="checkbox"/> _____ minutes (time recommended by manufacturer) <input type="checkbox"/> _____ minutes (number of minutes when test or reference product exhibit the desired effect).
<b>Is the test product considered more effective than water in all evaluations?</b>	Yes      No

<b>Assessment – visual:</b>					
<b>Conducted tests (parallels):</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Not effective / not satisfactory (not as good as the reference product)					
Sufficiently effective / sufficiently satisfactory (as good as the reference product)					
Very effective / very satisfactory (better than the reference product)					
Other comments to the assessment of the products:					

Assessment according to another method (specified above):
Assessment of the test product:
<input type="checkbox"/> Not effective / not satisfactory (not as good as the reference product)
<input type="checkbox"/> Sufficiently effective / sufficiently satisfactory (as good as the reference product)
<input type="checkbox"/> Very effective / very satisfactory (better than the reference product)
<input type="checkbox"/> Other assessment – specify:

### Details of the test laboratory

<b>Place and date</b>	<b>Company name</b>
<b>Responsible person</b>	<b>Signature of responsible person</b>
<b>Telephone</b>	<b>Email</b>

## Appendix 6 Packaging

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of industrial cleaning and degreasing agents.

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.

<b>Producer/distributor:</b>
<b>Part of the packaging (container, closure, label):</b>
<b>Packaging material (type of plastic, cardboard etc.) List all materials included in the packaging component and the percentage of each material:</b>

<b>O17 Packaging: Container</b>		
	Yes	No
<b>Does the container consist of PE (polyethene)?</b>		
If yes, how many % ? _____ %		
Does the remaining % consist of biodegradable material or other material than PE or PP?		
Has carbon black been added to the component?		
<b>Does the container consist of PP (polypropylene)?</b>		
If yes, how many % ? _____ %		
Does the remaining % consist of biodegradable material or other material than PE or PP?		
Has carbon black been added to the component?		
<b>Does the container consist of PET (polyethylene terephthalate)?</b>		
If yes, how many % ? _____ %		
Is the component transparent or coloured transparent?		
If yes, has carbon black been added to the component?		

<b>O17 Packaging: Closure</b>		
	Yes	No
<b>Does the closure consist of PE (polyethene)?</b>		
If yes, how many % ? _____%		
Does the remaining % consist of biodegradable material or other material than PE or PP?		
Has carbon black been added to the component?		
<b>Does the closure consist of PP (polypropylene)?</b>		
If yes, how many % ? _____%		
Does the remaining % consist of biodegradable material or other material than PE or PP?		
Has carbon black been added to the component?		
<b>Does the closure consist of PET (polyethylene terephthalate)?</b>		
If yes, how many % ? _____%		
Is the component transparent or coloured transparent?		
If yes, has carbon black been added to the component?		

<b>O17 Packaging: Label</b>
Please specify which material the label consist of (PE (polyethene), PP (polypropene) or other material):  _____

<b>Place and date</b>	<b>Company name</b>
<b>Responsible person</b>	<b>Signature of responsible person</b>
<b>Telephone</b>	<b>Email</b>