

A large background image of a lavender field under a clear blue sky. The lavender plants are in full bloom, with small purple flowers. A person's hand is visible on the right side, holding a small bunch of lavender. The overall scene is bright and natural.

NCS

NATURAL COSMETICS STANDARD



**Natural cosmetics for humans,
pets and the environment**

A standard of GfaW Gesellschaft für angewandte Wirtschaftsethik mbH (Society of Applied Ethics in Business)

Developed in cooperation with EcoControl GmbH, INCI-Experts GmbH, Ingenieurbüro E.C. Schweig GmbH and the working group “raw material”

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Introduction

The Natural Cosmetics Standard NCS regulates the requirements of certified natural cosmetics. "Natural cosmetics" are conceived of as cosmetic products, the ingredients of which are untreated and/or arise from natural raw materials. In case of a successful certification of the declared products, the NCS label can be used for marketing purposes.

The NCS Standard regulates the quality of a product's ingredients but not the composition of the product itself. Certification is not bound to the membership of any institution and is therefore an option for manufacturers who do not want to be associated with any organisation and simply wish to have their organic ingredients certified.

The NCS Standard serves as a basis for the design of customised natural cosmetic products. It assures the quality of ingredients according to the generally valid definition of natural cosmetics. Furthermore, it simplifies access for the first-time manufacturer of natural cosmetics.

Requirements that are already covered through Cosmetics Regulation, waste disposal regulations, labour law, etc. are not part of this standard.

The NCS is composed of the criteria and an annex. The annex consists of a white-list which complements the criteria. It is a white-list which can be expanded upon request.

The NCS label for marking products also provides customers with sound guidance. Manufacturers using the NCS trademark can also list those ingredients which are certified as being of organic quality.

Building on this product certification, the standard setter recommends the CSE Certified Sustainable Economics <https://gfaw.eu/> certification and the climate accounting tool for the basis of a corporate carbon footprint (<https://gfaw.eu/ergaenzende-nachhaltigkeitsleistungen/>).

Scope of application

The NCS refers to all cosmetic products intended for humans and animals. In this context, cosmetic products are defined as substances or mixtures that are intended to come into

external contact with parts of the human body or with teeth and oral mucosa, for the sole purpose of cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or having an impact on body odours.

Assortment requirements

If the manufacturer offers cosmetic products which are not in compliance with the natural cosmetics directive, these products must be clearly differentiated through appropriate marking or other aspects of appearance. The NCS Standard may only be applied for if at least 60% of the product assortment (with reference to the total number of products in the assortment) are natural products. All necessary testing records of the natural cosmetics assortment must therefore be provided, irrespective of the number of natural products to be certified.

In the case of using several natural cosmetic standards at least 60% of all products have to be registered as NCS and labelled with NCS.

General Criteria

NCS certified products are composed **solely** of raw materials named in the NCS Standard and produced only through processes named in the NCS standard. The appendix contains a positive list of natural raw materials and nature-identical inorganic pigments and minerals that have already been assessed and approved as compliant. This list serves as a guide in product conception. It is constantly being replaced by newly approved INCIs.

The qualities of the approved raw materials are described in the criteria.

Surfactants must be biodegradable by more than 60% within 28 days according to OECD Test 310 (EN ISO 14593) and 311 (EN ISO 11734).

Animal-testing for the purposes of the production or distribution of NCS certified products is forbidden.

With regard to GMO freedom, the requirements of the EC Organic Regulation (Regulation (EC) No. 834/2007, until 31.12.2008, Regulation (EEC) No. 2092/91) apply to the end product

and the raw materials used. This requirement also applies to ingredients that would not be covered by the Organic VO, such as non-food substances and non-organic certified material.¹

1. Definition

Composite packaging: Packaging consisting of different types of material which cannot be separated manually, none of which exceeds 95% by mass of the total packaging.

Foreign materials: Material composition other than the basic packaging - e.g. sleeves or labels.

Impurities: Substances that interfere with or prevent the recycling process according to the current state of the art.

NIR: Near Infrared. NIR (near infrared) refers to a spectrum in a range between 760 and 2,500 nm that is not visible to humans. In this wavelength range, material-typical patterns based on molecular vibrations can be detected after excitation with light. This technology is used for sorting packaging.

Recyclability: Recyclability is the individual gradual suitability of a packaging or a product to actually substitute material-identical new goods in the post-use phase; "actual" here means that collection and recovery structures on an industrial scale are a prerequisite.

Recycling share: Share of recycled raw materials in relation to the total of raw materials.

Synthetic: This standard defines "synthetic" as anything that originates from a chemical process that would not occur in nature in this way and/or is of petrochemical origin.

¹ The substances are neither produced from nor produced by nor with the help of genetically modified organisms. Evidence for plants is the PCR method (the threshold of a random, technically unavoidable admixture is 0.9%) and for the other substances a GMO declaration of freedom of the manufacturer. Selected raw materials which cannot be produced without enzymes from genetically modified organisms according to the current state of the art and which are marked separately in the positive list will be given a tolerance period until the end of 2022. A query on the declaration of freedom will be provided by the standard provider.

2. Definition of permitted raw material groups

Cosmetic ingredients permitted by NCS are classified into the following raw material groups:

- **Natural raw material:** chemical unmodified raw material of vegetable, inorganic-mineral or animal origin as well as their mixtures and reaction-products with each other.
- **Derived natural raw material:** Raw material obtained from natural material as defined above through permitted chemical reactions.
- **Nature-identical inorganic pigments and minerals:** Raw material, the chemical composition of which is identical to natural pigments and minerals.
- **Nature-identical preservatives:** Raw material, the chemical composition of which is identical to natural substances and which is used as a preservative.

2. Raw Materials and their Processes

For production of NCS certified products the following raw materials and processes are permitted:

2.1 Natural Raw Material

Natural raw materials are obtained only through physical processes using extraction and auxiliary agents listed in point 3.4. All natural materials are preferably derived from certified organic raw material (kbA or kbT).

Furthermore enzymatic and microbiological methods are permitted as long as naturally occurring enzymes and micro-organisms are used.

Raw materials descend from rare or protected species of animals may only be used when they are taken from live animals which are reared in a cruelty-free way which is appropriate to their species. Raw materials of vegetable origin from protected or rare species of plants may not be used, unless the material comes from alive animals in a way that is in line with the conservation of the specie.. Critical substances in terms of sustainability such as palm oil should

be avoided. If the use of palm oil or palm kernel oil cannot be avoided, it must at least be of RSPO-certified origin. The standard owner recommends that producers request information from suppliers about relevant aspects related to the sustainability and origins of all raw materials used in their products.

2.1.1 Plant-based Natural Raw Material

The following Raw Material originate from certified organic agriculture:

Sunfloweroil, oliveoil, soyoil, coconutoil, jojobaoil.² Sheabutter originates either from Organic agriculture or from wild-harvest.

The following natural substances originate at least from RSPO cultivation:

Palm oil and palm kernel oil

Raw materials whose cultivation is critical in terms of sustainability, such as palm oil, are only tolerated with a demonstrable weighing of priorities.

The use of chemically unmodified vegetable raw materials (essential oils, fatty oils in extracts etc.) is basically permitted. Plants are not subject to the approval process for the white-list and need not be listed in it. The EC Cosmetics Regulation, in particular for the protection of human health, must be taken into account. It is the manufacturer's responsibility to use only harmless raw materials.

Raw materials gained from fermentation or biotechnological processes are also permitted in so far as they exclusively occur in nature. They are not subject to the approval process for the white-list, nor need they be listed in it. If the raw material corresponds to an agricultural product, it is included in the organic calculation.

² If the feedstock is temporarily unavailable in organic quality due to crop failure or political conditions (trade boycott or similar) or due to geographical reason – emerging countries, this unavailability is evidenced by documented demand from at least three different traders. If the raw material is not available in organic quality due to civil war in the country of production, the conventional quality from this country is preferred to the organic quality from another country. This serves the economic support of the country. Only when a safe control in this country can take place again, the organic quality should be used.

2.1.2 Animal Natural Raw Material

The use of raw materials produced by animals (e.g. milk, honey) is permitted. The use of raw materials derived from dead vertebrates (e.g. emu oil, mink oil, marmot oil, animal fats, collagen and living cells) is not allowed.

2.1.3 Mineral Natural Raw Material

Natural raw material of mineral origin is permitted as long as it is chemically unmodified and was obtained through physical processes. Mineral salts such as magnesium sulphate or sodium chloride are allowed in NCS certified products. Exceptions can be found under point 3, "Non-permitted Raw Material".

2.1.4 Fragrances

Natural fragrances which comply with ISO Standard 9235 are permitted. Furthermore, fragrances produced through biotechnology can also be used.

Fragrances are not included in the white-list and do not have to be registered. A declaration of ISO 9235 compliance by the manufacturer is sufficient.

2.1.5 Water

Water is classified as a natural raw material as long as it originates from plants. As long as the origin is proven to be organically certified, it can be declared as such.

2.2 Derived Natural Raw Material

Modified raw material may be obtained from natural raw materials as defined above by using following chemical reactions: hydrolysis (including saponification), neutralisation, condensation with elimination of water, esterification, transesterification, hydrogenation, hydrogenolysis, dehydrogenation, glycosidation, phosphorylation, sulphatation, acylation, amidation, dimerization, oxidation (with oxygen, ozone and peroxides) and pyrolysis.

The application of Halogenated Organic Compounds for the modification of natural raw materials is not allowed.

2.3 Nature-identical Minerals and Pigments

Permitted nature-identical minerals, preservatives, pigments and vitamin are listed in the white-list. (Annex white list)

2.4 Nature-identical Preservatives

If necessary for the general product safety, the following nature-identical preservatives are permitted in NCS certified products:

- benzoic acid and its salts
 - salicylic acid and its salts
 - sorbic acid and its salts
 - benzyl alcohol
- formic acid and its sodium salts
- dehydroacetic acid and its sodium salts*
- propionic acid and its sodium salts

If these preservatives are used, the additional phrase "preserved using ... [Name of the preservative]" on the packaging is required.

* As far as in accordance with directive 76/768/EWG, excluded from this are ethanolamine salts.

2.5 Auxiliary and Extraction Agents

Permitted extraction agents for natural materials are: water, ethanol of plant origin, carbon dioxide, fats and oil of plant origin, glycerine of plant origin. Beyond that, naturally occurring enzymatic and microbiological processes are allowed. If there is no alternative extract, extraction agents not complying with the NCS Standard are allowed. In such cases, the extraction agent must be reduced down to the limit of detection which is listed in the analytical method according to § 5e of EC Cosmetics Regulation.

Pretreatment with preservatives and processing aids must meet the requirements of the directive if they remain in the final product. The only exception is made for auxiliary agents

which are used and then removed as far as state of the art technology allows (for example solvents).

All raw materials and processing aids (especially preservatives and processing aids) which are in the final product must be registered with their INCI title. This requirement applies irrespective of whether or not they legally constitute "ingredients" according to § 1 of the EC Cosmetic Regulation. When reporting the composition, sentence 2 of §1 of the EC Cosmetic Regulation does not apply.

2.6 Aerosol

Aerosol gases are ingredients of the product. NCS certified products may contain CO², nitrogen and compressed air.

3. Non-permitted Raw Material

The following material groups are not permitted in NCS certified products:

- EDTA complexing agents, glutaraldehyde, formaldehyde or formaldehyde releaser
- Halogenic organic compounds
- Synthetic fats, oil, waxes or silicones
- Aromatic amines, ethanolamin and –derivates
- Synthetic fragrances
- Ethoxylated raw materials
- Artificial musk compounds
- Phtalates
- PEG and PEG-Derivates
- Solid, insoluble polymers, especially if they are smaller than 5 mm

4 Nanomaterial

Ingredients that must be labelled as "nanomaterials" under the EU Cosmetics Regulation are not permitted in NCS-certified products. Excluded from this are substances that are coated. In this case, the material for coating must comply with this standard.^{3, 4}

5 Radioactive Radiation

The treatment of vegetable and animal raw materials and the end products with ionising rays is not permitted.

6 Packaging

NCS-certified products are only marketed in environmentally friendly packaging placed on the market. This may be reusable packaging or disposable packaging made of recyclable material, such as glass, PET and PP plastic, cardboard packaging, paper or metal, but no halogenated plastics such as chlorinated plastics.

Refill packs and refill systems are to be made available to retailers or Coop initiatives as required for the purpose of minimising packaging.

Valid for all packaging to be purchased from 01.01.2024⁵:

³ This applies to all formulations and products registered for certification after 01.08.2020. Products registered before 01.08.2020 are subject to a transition period until 31.12.2023 to adapt the formula to non-nano or coated raw materials.

⁴ The current state of science does not allow any clear conclusion to be drawn about the risk or harmlessness of nanomaterials. (see <https://www.umweltbundesamt.de/publikationen/nanomaterialien-in-der-umwelt>) Studies have so far only been conducted with non-coated particles. The coating prevents oxidation of the particles and thus increases the chance of better tolerability. Until further findings are available, the standard setter sees this criterion as a compromise.

⁵ Explanation of the criteria and recommendations for action

Section 21* of the Packaging Act provides for the implementation of financial incentives for the use of recyclable packaging. No recyclability will result in a payment by the distributors, but the use of at least 90% recyclable packaging provides for a reimbursement.

The standard setter therefore recommends, both from a financial and an environmental point of view, not only to adhere to the minimum requirements in this standard, but to follow the recommendations.

Particularly in the case of fibrous materials, it is often assumed that these are naturally recyclable. However, this can already be undermined by the wrong or too thick varnish, by hotmelts in folding boxes or by coatings and finishes. Information on the recyclability of fibrous materials can be found in the standard PTS-RH 021 97. In the case of fibrous materials, the origin should also be checked, since about half of the cellulose comes from Latin America and from eucalyptus monocultures. In order not to support this trend, it is important not only to see the certificate number of the producing company in the FSC supply chain tracking, but also to list the numbers of the incoming raw materials.

Natural products in environmentally harmful packaging do not go together. Especially not if the packaging gives a green impression although it interferes with the recycling process or is even non-recyclable. The standard counters such greenwashing packaging with its criteria:

In principle, the use of packaging materials and packaging materials should ensure that the packaging task can be fulfilled with the lowest possible overall impact (economic, social, ecological).

The impact should always be determined across the entire value chain (raw material production, processing, logistics, use, end of life, reprocessing and new raw material use).

Packaging is used according to the following order of priority:

1st priority Avoid: As little as possible. Is the packaging indispensable?

2nd priority Reduce: The packaging that is necessary should use as little material as possible. Can the packaging material be reduced, e.g. through refill possibilities?

3rd priority Reuse: It is better to use reusable packaging than disposable packaging. The EU's 3rd priority is the development and use of reusable systems. This means that before one-way packaging made of recycled material is designed, it should be clarified whether a reusable system, regardless of its design, would not be possible.

4th priority recyclability: Recyclability of packaging and packaging materials, which is required by the EU and in Germany. This is not about the theoretical recyclability of materials, but about the recyclability of a complete packaging material (incl. closure and labels) in the existing material flows. This means that the packaging / packaging materials must be marked in such a way that the consumer assigns them to the correct material flow. Furthermore, packaging materials and packaging must be automatically recognisable and sortable (NIR technology for sorting recyclable materials). In addition, it must be possible to process them in the existing material flows and to convert them back to raw material / packaging material to an economic degree.

The recyclability of composite materials, plastics, glass and metal packaging is confirmed by companies such as HTP-cylos, Interseroh or Clover. The EU is working to build a circular economy, so it makes sense to use as much recycle, scrap or cullet in packaging as possible. The use of recycle, for example in the fibre sector, also ensures that raw materials come from domestic collections rather than sources from other continents.

*"§ 21 Ecological design of the participation fees

(1) Within the framework of the assessment of the participation fees, systems shall be obliged to create incentives in order to in the production of packaging subject to mandatory participation in the system

1. to promote the use of materials and combinations of materials in the production of packaging subject to system participation that can be recycled to the highest possible percentage, taking into account sorting and recovery practices, and
2. to promote the use of recycled materials and renewable raw materials. ..." (Packaging Act of 05.07.2017)

5. emptiability priority: residual emptiability of the packaging. In order not to disrupt the sorting and recycling process, the packaging must be easy to empty.

The materials listed in the appendix that are marked **green** may be used.

All materials marked in **orange** and **red** are interfering materials for the recycling process.

The materials marked **orange** are tolerated, but are currently not recommended by the standard setter.

The materials marked in red may not be used.

Since the technical possibilities of the recycling industry are subject to immense change, the material list is reviewed every 2 years by the standard setter to ensure that it is up to date and, if necessary, adapted.

In addition, the following minimum requirements apply to the materials:

Paper packaging:

Fully recycled paper materials are to be preferred to virgin paper. The recycled content of paper packaging is at least 50%.

Raw paper materials come from either FSC or PEFC sources.

The paper must not be bleached with chlorine or chlorine derivatives. Only TCF is allowed.

In particular, wet strength agents, greaseproofing agents and finishes based on PFC are not permitted. Coatings and laminations must not be used on paper materials as a matter of principle.

Wood-based packaging:

The wood comes from FSC or PEFC sources. The packaging must be constructed in such a way that it is possible to separate different materials.

Plastic-based packaging:

The recycled content in the PET-plastics is at least 90%.

No multilayer constructions PP/PE or PET/PE. No different plastics on front and back. Printing inks suitable for recycling (minimum standard: EuPIA-compliant printing inks). If labels or sleeves made of foreign materials are used, they are smaller than 50% of the packaging surface (see minimum standard NIR interfering materials).

No PETG sleeves or components in PET bottles.

No cellulose-based labels in firm contact with polyolefin packaging.

No silicone components.

Adhesives:

Only REACH compliant adhesives may be used.

7 Requirements for Labelling

NCS certified products may be labelled as “certified natural cosmetics” and are allowed to bear the NCS mark.

The following labelling options are feasible:

1. A product certified by the NCS Standard may be labelled as an “organic cosmetic” if at least 95% of the ingredients originate from certified organic cultivation. In this case the percentage of organically cultivated ingredients must be calculated based on the total ingredients (for example 45% of the total ingredients are organically certified). Organic cosmetic products may bear the label “organic quality”.
2. An NCS-certified product may be labelled as a vegan natural cosmetics if no ingredients are of animal origin or is obtained from animal substances.

The ingredients of all NCS certified products must be declared on the packaging via the INCI register.

If ingredients of certified organic quality are included in the product, they may be characterised as follows:

Details concerning the organic quality of ingredients are only reliable if they are listed in such a way that they can be unmistakably and precisely traced in the list of ingredients. Use of the phrase “organic quality” refers to the certified organic origin of the primary material. For example, the precise declaration with “*” can be used. This arrangement applies accordingly to all synonyms such as “bio”, “organic” or “eco”. The language is irrelevant.

1. The proportion of organic quality ingredients is specified by its percentage and should be declared in whole numbers. Fractional numbers are rounded up to the next whole number.

Permitted declarations, for example, are: “100% of those ingredients which can be organic are organic”, or “product contains 70% organic ingredients”.

2. When calculating the percentage regarding point **5.2**, the following needs to be considered:

Ingredients of organic quality are measured in terms of their whole weight proportion, e.g. parts of plants, pressed juices, pressed oils and essential oils.

Plant extracts can be measured in their whole weight proportion if the final product does not include extraction agents (e.g. CO₂ extraction) or the remaining extraction agent itself has organic quality.

Following formula may be used:

$$X = P/(P+E) \times 100$$

X = organic amount in extract

P = mass of used plant raw material

E = mass of used extraction agent

3. For concentrates, the weight of the primary material does not need to be calculated. The water added to the concentrate does not need to be considered.

8 Supplier Changes

In order to obtain a clear identification of the raw material, any change must be reported to the certification body. This concerns the supplier, the composition of the raw material and, if applicable, its manufacturing process.

The standard owner recommends that the producer requests information about sustainability and human rights from their suppliers. If desired, the standard owner can provide templates for this purpose.