

Naturland

NATURLAND STANDARDS

PROCESSING

Supplement for cosmetic products

Version 05/2020

XIV. Processing standards for cosmetic products

The processing standards for cosmetic products are supplementary to the Naturland standards "Processing - General Section", including the appendices.

These are likewise binding on all processing standards for specific groups of products and consequently must be observed in processing cosmetic products.

1. Area of application

The following fall within the field of application of these standards:

- Cosmetic products as defined by the EU cosmetic regulation 1223/2009 in the currently valid version.
- Cosmetic products claiming both natural origins and a manufacturing process based on organic principles.

2. Definitions

Cosmetic products

(As defined by the EU cosmetic regulation 1223/2009 in the currently valid version)

"A „cosmetic product means any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours."

Ingredients of agricultural origin

All ingredients produced from plants or animals and/or processed products made from these agricultural ingredients, which are produced in accordance with processing procedures in these standards.

Ingredients of organic origin

Any product produced from vegetable or animal ingredients or wild collection/harvest and complying with the requirements of organic production, i. e. any product complying with the requirements of Naturland's standards and – wherever necessary – regulation (EC) No 834/2007 (ref. also "Labelling" below).

3. Ingredients of agricultural and non-agricultural origin

All ingredients from agricultural production are allowed which comply with the requirements of the priority list contained in Naturland's standards (ref. Part C. VI. 4.1). You may use ingredients of animal origin as long as they are produced by animals but are not a part of the animal.

All ingredients meet the requirements of the European Council Directive for cosmetic products.

Besides this, the following regulations apply:

3.1 Water

- water of drinking water quality (hygienic standard: CFU lower than 100/ml)
- water obtained by osmosis, distilled water, sea water

Filtering and softening of water is allowed.

3.2 Minerals

The use of minerals, which are listed in appendix 7, is allowed.

3.3 Preservatives¹

- benzoic acid and its salts
- benzyl alcohol
- dehydroacetic acid and its salts
- salicylic acid and its salts
- sorbic acid and its salts

The use of preservatives has to be shown with a label stating "preserved with...".

¹ The use of preservatives is allowed as long as no effective natural alternatives are accessible, to ensure the consumers' safety or product stability.

3.4 The following ingredients are not allowed:

- synthetic dyes
- synthetic perfumes
- synthetic antioxidants
- synthetic emollients
- synthetic oils and fats
- synthetic silicones
- synthetic UVA and UVB filters.

3.5 Nanoparticles

The use of anthropogenic nanoparticles of a defined particle size at the nanoscale (approx. 1 – 300 nm in at least one dimension) is not permitted.

4. Permissible processing methods

4.1 Permissible processing methods for mineral ingredients

- washing
- steam cleaning
- ultra-heat treatment
- drying
- other mechanical cleaning methods

4.2 Permissible physical processing methods

- extraction with water or with a third solvent of plant origin like ethyl alcohol, glycerine, vegetable oils and carbon dioxide (CO₂) absorption (on an inert support that conforms to Naturland's standards)
- bleaching, deodorising (on an inert support that conforms to Naturland's standards)
- decoction
- freezing
- grinding
- centrifuging
- settling and decanting
- drying (by evaporation/naturally in the sun)
- deterpensation (if fractionated distillation with steam)
- distillation, expression or extraction (steam)
- filtration and purification (ultra filtration, dialysis, crystallisation, ion exchange)
- infusion
- lyophilization
- blending
- percolation
- roasting
- pressure
- sifting
- sterilisation by means of UV
- sterilisation with thermal treatment (at a temperature compatible with the active substances)
- maceration
- ultrasound
- UV treatments
- vacuum

4.3 Permissible chemical processing methods

- Precise modalities like catalysts, solvents comply with Naturland's standards.
- alkylation
- amidation
- calcination of plant residues
- carbonisation (resins, fatty organic oils)
- condensation and addition
- esterification/trans-esterification

- etherification
- fermentation
- hydratation
- hydrogenation
- hydrolysis
- neutralisation
- oxidisation and reduction
- phosphorylation (permitted only for ingredients for leave-on products)
- saponification
- sulphation/sulphatation

5. Prohibited processing methods

- alkoxylation
- bleaching-deodorisation (on a support of animal origin)
- use of enzymes derived from GMOs
- deterpenation (other than with steam)
- ethoxylation
- irradiation
- sulphonation (as main reaction)
- treatments with ethylene oxide
- treatments using mercury (mercurial soda)
- use of petrochemical solvents (hexane, toluene, benzene, etc.)
- propoxylation
- halogenation.

Prerequisites for chemically processed ingredients of agricultural origin

- compliance with aquatic toxicity of Daphnia: EC_{50} (48 h) > 100 mg/l
- Chemically processed ingredients must be easily biodegradable according to OECD 302 series (more than 90% in 28 days).
- Furthermore, chemical processes must comply with the following principles (Environmental Protection Agency Green Chemistry Programme, USA, 1998): energy economy, high yield, lower waste production, use of alternative catalysts, use of renewable resources, absence of temporary modification (intermediary reactions), non-persistent products, no synthetic solvents.

6. Animal testing

Animal testing may not be used in the production, development or testing of the final products and may not be commissioned except where required by law.

7. Documentation and duty of proof

In addition to Part C. VI. 7 of Naturland's standards, the following requirements apply:

In order to ensure traceability throughout the supply chain, a total quality management system – TQM - (starting with the production of the raw materials via the respective processing stages to the final product and distributor) must be introduced, also covering the measures implemented by the operation to comply with the code of good manufacturing practice (GMP). The TQM system describes and records every stage of production and every measure taken. Naturland must be informed of any change in suppliers, processing stages, processing aids and processors, and these changes need to be approved by Naturland, before they are made.

Furthermore, you have to establish an environmental management plan which addresses the whole manufacturing process and all the residual products and waste resulting from this. As part of the environmental management plan, you have to establish a waste management plan which addresses your manufacturing waste, including gaseous, liquid and solid waste. The aim of the management plan is to reduce, reuse and recycle waste products on an efficient and rational basis².

As a matter of course, you must regularly:

- sort and recycle or process your cardboard, glass and paper
- send all your other waste that you cannot recycle to a specialised recycling firm.

² The implementation of ISO 14000 or national legislation that already covers this will be accepted.

8. Cleaning and hygiene

You must use cleaning materials in which the ingredients comply with these standards. In addition, you may use the following disinfection materials:

- alcohol derived from vegetable sources
- iso-propyl alcohol
- amphoteric surfactants
- hydrogen peroxide
- mineral acids and alkalis
- ozone
- formic acid
- peracetic acid
- and any other ingredients listed as accepted in these standards.

9. Labelling

The frame of reference for cosmetic products to be labelled as organic is the ratio of organic ingredients to the total amount of ingredients obtained from plants or animals in the finished product. When calculating the amount of agricultural ingredients employed (W_{AI}), the component water is not included in the calculation.

9.1 Proportions of ingredients in the finished Naturland cosmetic product

Of the ingredients of agricultural origin and/or products processed from these agricultural ingredients, insofar as they have been obtained by physical methods or extraction procedures without the use of synthetic processing aids, 95% must have been certified by Naturland. Where ingredients are not available in Naturland quality, the same rules are applied as for Naturland food products (ref. Part C. VI. 4.1).

Organic quality shall be demonstrated either by certification of the base materials or – in the case of processed ingredients not covered by the organic standards – by the processor producing proof of organic quality. This can take the form, for example, of a declaration by the processor giving details of the measures taken to comply with standards.

9.2 Calculation of ratios

The calculation of the percentages mentioned above is the produce of the weight (W) of the organic ingredients (W_{Orgl}) in relation to the total amount of agricultural ingredients (W_{Agrl}). W_{Agrl} is thereby the sum of organic (W_{Orgl}) and conventional (W_{Convl}) ingredients: $W_{Orgl}/W_{Orgl}+W_{Convl}$.

Emulsifiers are not included in the calculation.

Example of calculation of emulsion:

W_{Orgl} = organic oil 19% + 10% hydrolat 1:4 from organic roses (= 2% roses: without water) + organic alcohol extract 5% + 1% water extract 1:4 (= 0.2% organic ingredients; without water) + organic essential oil 2%.

W_{Convl} = conventional essential oil 1%

Calculation of proportion of organic ingredients in the agricultural ingredients of the final product:

$W_{Orgl}/W_{Orgl}+W_{Convl}$ = 28.2% / 29.2% = 96.58 % organic

Naturland labelling taking water/alcohol extracts (proportion of ingredients in [%]) as an example:

ingredients	proportion of preparation				
	example 1	example 2	example 3	example 4	example 5
organic drug	50.00%		40.00%	25.00%	18.00%
conventional drug		25.00%		10.00%	2.00%
organic alcohol	50.00%	75.00%			20.00%
conventional alcohol				30.00%	
water			60.00%	35.00%	60.00%
proportion of agricultural ingredients (W_{Agrl})	100.00%	100.00%	40.00%	65.00%	40.00%

proportion of organic ingredients (Orgl)	100.00%	75.00%	40.00%	25.00%	38.00%
Naturland labelling possible (Orgl/Agri)	yes (100%)	no (75%)	yes (100%)	no (38.5%)	yes (95%)

At least 20% of the ingredients of the final product must be organic and certified under these standards.

9.3 Information on ingredients from organic sources

The general Naturland requirements on labelling apply. In particular, substances from organic sources in the list of ingredients must be identified as such and indicated as “ingredients of organic origin”.

9.4 Additional information on ingredients and components

If further details are to be given on the ingredients used, so that the consumer is in possession of comprehensive information, the following general statements can be made:

- X% of the total ingredients are derived from plants or animals.
- X% of the ingredients derived from plants or animals are organically produced³.
- X% of the ingredients derived from plants or animals are organically produced in the context of conversion.
- X% of the ingredients are of mineral origin (including water)

³ Where the Naturland logo is applied, the proportion must be at least 95%.

Appendix 7: Permissible ingredients for cosmetics of mineral origin

The usage of ingredients of mineral origin is allowed for the specific uses listed or for general purposes if no specific uses are listed.

Substance (Chemical name and/or INCI Name)	Examples of occurrence in nature
aluminium hydroxide	bauxite (gibbsite, hydrargillite)
aluminium oxide	corundum, clay
aluminium sulphate	alunogen, naturally occurring in volcanoes
manganese violet CI 77742	derived from the breakdown of bat guano
ammonium sulphate	
bismuth oxychloride CI 77163	bismoclite
calcium aluminium borosilicate	tourmalines
calcium carbonate CI 77220	sediment rocks, calcite, aragonite, vaterite; main component in marble, chalk, dolomite
calcium sulphate	gypsum
chromium oxides CI 77289 CI 77288	guyanait, grimaldiit, bracewellit, eskolaite
copper oxide	
copper sulphate	weathering product, sulphidic copper ore, chalcantite
calcium hydrogenorthophosphate/ dicalcium phosphate dehydrate	limitation of use: only in oral cavity hygiene product
hydrated Silica	quartz sand
iron hydroxide	
iron oxides CI 77480 CI 77491 CI 77492 CI 77499	bernalit, feroxygit ferrihydrite, goethite lepidocrocit
iron sulphate	
ultramarines CI 77007	gemstone (lapis lazuli)
magnesium aluminium silicate/silicic acid, aluminium magnesium salt	
magnesium carbonate CI 77713	magnesite, dolomite
magnesium chloride	
magnesium hydroxide	
magnesium oxide CI 77711	
magnesium silicate (silicic acid, magnesium salt)	talc, sepiolite, minerals of the serpentine group
magnesium sulphate	kieserite
trimanganese bis orthophosphate CI 77745	
manganese sulphate	
mica CI 77019	annite, phlogopite, muscovite
potassium carbonate	in ash, in inland waters (Dead Sea, Lop Nor desert)
potassium chloride	sylvite, carnallite, kainite
potassium hydroxide	
potassium sulphate	
prussian Blue CI 77510	kafehydrocyanite

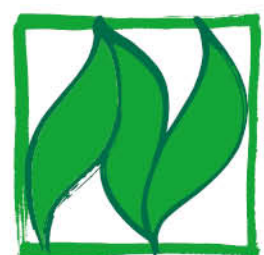
silica	quartz sand
silver chloride	silver ores, often together with lead-copper and zinc ores as sulphides, sulphates or oxides
silver oxide	silver ores, often together with lead-copper and zinc ores as sulphides, sulphates or oxides
silver sulphate	silver ores, often together with lead-copper and zinc ores as sulphides, sulphates or oxides
sodium bicarbonate	natron, mineral nahcolith
sodium borate	borax
sodium carbonate	soda (various crystal forms), in soda lakes
sodium chloride	
sodium hydroxide	
sodium magnesium silicate	
sodium metasilicate/disodium metasilicate	
sodium silicate	
sodium sulphate	glauber salt; in mineral waters; mineral thenardite
titanium dioxide CI 77891	anatas, brookite, rutile
tin oxide CI 77861	cassiterite in alluvial deposits
zinc carbonate CI 77950	smithsonite
zinc oxide CI 77947	wulfingit, sweetit, ashoverit
zinc sulphate	goslarite

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