

## **COSMOS-standard**

### COSMOS-standard Cosmetics Organic and Natural Standard

Version 3.1 – 1 June 2020

Developed by leading associations and  
certifiers in organic and natural cosmetics

[www.cosmos-standard.org](http://www.cosmos-standard.org)

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# 1. INTRODUCTION

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This Standard has been developed at the European and international level by BDIH (Germany), COSMEBIO & ECOCERT (France), ICEA (Italy) and SOIL ASSOCIATION (UK) who are the founders of the COSMOS-standard AISBL (an international non-profit association registered in Belgium) in order to define common requirements and definitions for organic and/or natural cosmetics.

## 1.1 Main objectives of COSMOS-standard

Addressing the excesses and failures of current developments is a key challenge for our society. Establishing a "sustainable development" that would reconcile economic progress, social responsibility and maintain the natural balance of the planet is a project in which the cosmetics sector is willing to be fully involved. The application of the principles of sustainable development in economic activity implies, however, changing patterns of production and changing consumption practices. Recognising these challenges, the responsibility of its actors, the organic and natural cosmetics sector clearly shows its ambition to go further in sustainable development with the setting at the European and international level of this standard for organic and natural cosmetics.

To stimulate processes for sustainable production and consumption, the organic and natural cosmetics sector is using some simple rules governed by the principles of prevention and safety at all levels of the chain from production of raw materials to the distribution of finished products.

These rules are:

- promoting the use of products from organic agriculture, and respecting biodiversity
- using natural resources responsibly, and respecting the environment
- using processing and manufacturing that are clean and respectful of human health and the environment
- integrating and developing the concept of "Green Chemistry".

This last point, a new aspect of the COSMOS-standard is key to the success of this ambition considering the specificities and constraints of the formulation of cosmetic products (particularly versus food products).

With this "green philosophy" and this desire to actively contribute to sustainable development, the cosmetics sector is committed to define and implement a standard for organic and natural cosmetics. This Standard takes into account the current technological reality while infusing a dynamism that will lead to innovative developments.

To facilitate the translation of these rules at the level of a Standard, it is necessary to distinguish the five categories of ingredients contained in a cosmetic product (listed below in ascending order of human intervention):

1. water – vital and basic raw material in product development; its quality is essential;
2. mineral ingredients – interesting and necessary, but not renewable; they require clear environmental rules in their use, and in further processing;
3. physically processed agro-ingredients – already benefit from satisfactory European and other recognised standards on organic agriculture;

4. chemically processed agro-ingredients – certifiable by using agricultural organic raw materials and manufacturing processes that are clean and authorised, all under the umbrella of “Green Chemistry”;
5. other ingredients – this is the category to actively manage the transition from the current situation to the objectives and direction of this Standard.

The COSMOS-standard's ultimate objective is to address the major issues essential to the environment and welfare of man on the planet. For practical purposes, it aims to ensure the transition between today's and tomorrow's possibilities of technological advances to promote the development of cosmetics ever more natural and organic. This is necessary for the respect of consumers who must be informed clearly and transparently so that they can themselves be actors for sustainable development.

## **1.2 Documents**

### *1.2.1 Documents*

The Scheme Documents are the:

- COSMOS-standard,
- COSMOS Technical Guide which contains additional interpretation and explanation,
- COSMOS Labelling Guide,
- COSMOS Control Manual – Certification and Accreditation Requirements.

### *1.2.2 Copyright*

This Standard is the property of the COSMOS-standard AISBL and shall not be copied, reproduced or otherwise used except with its express written permission.

### *1.2.3 Revision*

The organic and natural cosmetics sector is still developing and both technology and understanding are advancing. The COSMOS-standard will therefore be subject to periodic review and amendment in line with the objectives above, taking into account availability of ingredients and technology, and after full and open consultation with stakeholders.

## 2. REGULATIONS

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The users of this Standard are expected to comply with all relevant legislation, including The EU Regulation on cosmetic products (EC No. 1223/2009) as amended, The EU REACH REGULATION (EC No. 1907/2006), Commission Regulation on claims in cosmetic products (EU No. 655/2013), and/or other local or national laws concerning cosmetic products where appropriate.

The regulations of this Standard for natural and organic products are in line with the legal framework of a large number of countries but without prejudice to additional legal provisions that might exist in some other countries.

## 3. SCOPE

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This Standard applies to cosmetic products and raw materials intended to be used in cosmetic products in two scopes:

- Scope 1: Certification of organic or natural cosmetic products, raw materials with organic content, base formulas;
- Scope 2: Approval of non-organic raw materials that can be used in certified references according to scope 1.

The users of this Standard are manufacturers, handlers and brand owners of organic or natural cosmetic products and ingredients.

## 4. DEFINITIONS

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In the context of this Standard, the definitions below will apply.

« Agro-ingredient » - any plant, animal or microbial product derived from agriculture, aquaculture or wild collection/harvest.

« Auxiliary » - any substance used during the manufacturing process of an ingredient to facilitate the reaction, but not considered as part of the ingredient.

« Catalyst » - a substance used to modify or increase the rate of a reaction without being consumed in the process.

« Chemically processed » - processed or extracted using chemical processes such as those listed in Appendix II (which are allowed) and Appendix III (which are not allowed).

« Contaminant » - a substance that is:

- not naturally present in the material, or
- present in quantities greater than those that exist naturally which could lead to pollution (persistence, residues) and toxicity risks.

Contaminants may be:

- heavy metals
- aromatic hydrocarbons
- pesticides
- dioxins & PCBs
- radioactivity
- GMOs
- mycotoxins
- medicinal residues
- nitrates
- nitrosamines.

« Cosmetic ingredient » - (taken from Regulation (EC) No. 1223/2009) - any substance or mixture intentionally used in the cosmetic product during the process of manufacturing. The following shall not be regarded as ingredients:

- impurities in the raw materials used,
- subsidiary technical materials used in the mixture but not present in the final product.

The term "raw material" is also used within the same meaning as cosmetic ingredient. Note - the water added during the manufacture of the finished product is therefore a separate ingredient.

« Cosmetic product » - (taken from Regulation (EC) No. 1223/2009) - 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.

« Genetically Modified Organisms (GMOs) » (taken from the Directive 2001/18/EC) means an organism, with the exception of human beings, in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination.

Annex 1A (taken from the Directive 2001/18/EC)\_summarizes what techniques are included as genetic modification.

« Derivative of GMO » - any substance which is produced from or by a GMO where the GMO is the source organism of the substance or is involved directly in the last process that accomplishes an essential conversion of the substance.

« Manufacturer » - (taken from Regulation (EC) No. 1223/2009) - any natural or legal person who manufactures a cosmetic product or has such a product designed or manufactured and markets that cosmetic product under his name or trademark.

« Manufacturing » - group of operations carried out in the factory or the laboratory, for obtaining, preparing, processing and labelling products.

« Mineral » - raw material obtained from naturally occurring substances formed through geological processes but excluding fossil fuel-derived materials.

« Mixture » - (taken from Regulation (EC) No. 1223/2009) - a mixture or solution composed of two or more substances.

« Moiety » - a specific segment of a molecule.

« Nanomaterial » - (taken from Regulation (EC) No. 1223/2009) - an insoluble or biopersistent and intentionally manufactured material with one or more external dimensions, or an internal structure, on the scale from 1 to 100 nm.

« Natural origin » - the following are of natural origin: water, minerals and ingredients of mineral origin, physically processed agro-ingredients, chemically processed agro-ingredients (and parts thereof) derived wholly from the above. The following are not of natural origin: petrochemical moieties, preservatives and denaturing agents from petrochemical origin.

« NNI » (Non-Natural Ingredient) - Preservatives and denaturing agents from petrochemical origin. Although they are usually from petrochemical origin, all or most of their structures are found in nature (nature identical).

« Organic » - production system that complies with Regulation No. (EC) 834/2007 or other organic standards using as their reference point the Codex Alimentarius GL 32 and certified in accordance with Regulation No. (EC) 834/2007 or an equivalent national or international standard or this Standard by a duly constituted certification body or authority. When referring to organic in this Standard, other terms that mean the same in other languages are also included and are subject to the same limitations.

- Considered as complying with Regulation No. (EC) 834/2007 are those standards that have been accepted as compliant or equivalent through the mechanisms set out in that regulation.
- Considered as using as their reference point the Codex Alimentarius GL 32 are those national standards (i.e. recognised by or within national legislation) where Codex Alimentarius GL 32 is clearly referenced within the standard.

« Organic content » - that part of an ingredient (or product) coming from an organic production system where the ingredient is certified in accordance with Regulation No. (EC) 834/2007 or an equivalent national or international standard or this Standard by a duly constituted certification body or authority.

« Petrochemical moiety » - A part of a molecule that is derived from petroleum.

« Physically processed » - processed or extracted using physical processes such as those listed in Appendix I (which are allowed).



« Primary raw material » - any product of plant, animal, or microbial origin, as well as minerals, which is used as raw material in the manufacture of cosmetic ingredients.

« Rinse-off product » - (taken from Regulation (EC) No. 1223/2009 - a cosmetic product which is intended to be removed after application on the skin, the hair or the mucous membranes.

« Soap » – Product (liquid or solid) obtained through a saponification reaction.

« Substance » - (taken from Regulation (EC) No. 1223/2009) - a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

« Total product » - the total finished cosmetic product including all ingredients (water, mineral ingredients, physically processed agro-ingredients, chemically processed agro-ingredients and other ingredients).

## 5. GENERAL

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### 5.1 **Precautionary principle**

When there is scientific evidence that an ingredient, technology or process could pose a health or environmental risk, then the precautionary principle will be applied, and it will not be allowed. For this reason, the following are not allowed.

#### 5.1.1 *Nanomaterials*

Nanomaterials are forbidden. It is recognised that there may need to be exceptions and applications for exceptions supported by technical dossiers will be considered.

#### 5.1.2 *Genetically modified organisms (GMOs)*

Primary raw materials or ingredients that are GMOs or derivatives of GMOs are forbidden. Contamination of primary raw materials or ingredients with genetically modified material must not be above 0.9% for that primary raw material or ingredient and can only be above the reliable detection limit of 0.1% if adventitious or technically unavoidable.

#### 5.1.3 *Irradiation*

Gamma and X-ray irradiation are forbidden.

### 5.2 **Animal testing**

Cosmetic products must not be tested on animals by the manufacturer or any third party induced to do so by it. Cosmetic ingredients must not be tested on animals by the manufacturer or any third party induced to do so by it except where required by law, other than cosmetic law.

### 5.3 **Sustainability**

Preservation of biodiversity and sustainability are important factors to take into account when selecting materials to be used in certified products/ingredients.

#### 5.3.1 *Palm oil*

Palm oil and palm kernel oil (and their derivatives) used in cosmetic products and ingredients must be from certified organic origin or certified sustainable sources (CSPO).

See section 7.4 for specifications and ingredients this applies to. See section 12 for implementation.

The raw materials required to be from CSPO will be reviewed regularly to reflect availability with the aim of increasing the ingredients from CSPO. COSMOS is committed to ensuring that the sourcing of palm oil ingredients across all COSMOS supply chains has no negative impact on natural ecosystems, including primary rainforest.

## 6. ORIGIN AND PROCESSING OF INGREDIENTS

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In this Standard, the ingredients of a cosmetic product are classified in five categories:

- water
- minerals and ingredients of mineral origin
- physically processed agro-ingredients
- chemically processed agro-ingredients
- other ingredients.

Each ingredient category is subject to requirements.

The same classification will apply for the origin and composition of a single cosmetic ingredient or a mixture of cosmetic ingredients. Manufacturers of ingredients must provide the corresponding percentages in the technical documentation.

Only physically processed agro-ingredients and chemically processed agro-ingredients can be certified organic. To be considered as organic or with organic content, they must be certified. Detailed requirements and calculation rules for organic percentage of ingredients are given below.

### 6.1 *Ingredients categories*

#### 6.1.1 *Water*

The water used must comply with hygienic standards (CFU less than 100/ml) and may be:

- potable water
- spring water
- water obtained by osmosis
- distilled water
- sea water.

Water may be treated with the physical processes allowed in Appendix I.

#### 6.1.2 *Minerals and ingredients of mineral origin*

Minerals may be used as long as they are obtained without intentional chemical modification and preferably from environmentally sound extraction processes.

Ingredients of mineral origin may be used only if they are listed in Appendix IV and they must comply with relevant legislation.

Minerals and ingredients of mineral origin may be treated with the physical processes listed in Appendix I.

### 6.1.3 *Physically processed agro-ingredients*

Included is any physically processed product of plant, animal, or microbial origin that complies with the conditions below:

- only primary raw materials of plant, animal or microbial origin that have been extracted using the physical processes listed in Appendix I are allowed.
- only primary raw materials that respect the requirements of the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) are allowed.

It is forbidden to use:

- plants, plant materials and microorganisms that have been genetically modified
- primary raw materials extracted from living or slaughtered animals.

It is allowed to use ingredients of animal origin as long as:

- they are produced by animals but are not a part of the animal
- they do not entail the death of the animal concerned, and
- they have been obtained using only the processes listed in Appendix I.

### 6.1.4 *Chemically processed agro-ingredients*

Included is any chemically processed product of plant, animal, or microbial origin that complies with the conditions below.

Only primary raw materials that respect the requirements of the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) are allowed to be used.

It is forbidden to use:

- plants, plant materials and microorganisms that have been genetically modified
- primary raw materials extracted from living or slaughtered animals.

It is allowed to use ingredients of animal origin as long as:

- they are produced by animals but are not a part of the animal
- they do not entail the death of the animal concerned, and
- they have been obtained using only the processes listed in Appendix I and II.

Chemically processed agro-ingredients may contain mineral moieties.

Note – alcohol and other by-products of fermentation are chemically processed agro-ingredients.

The following requirements apply to manufacturers of chemically processed agro-ingredients who should follow the principles of green chemistry for all the sequence of reactions that are needed to make each ingredient (Environmental Protection Agency Green Chemistry Programme, USA, 1998; [www.epa.gov/greenchemistry](http://www.epa.gov/greenchemistry)).

The manufacturer of chemically processed agro-ingredients:

- must only use the chemical processes listed in Appendix II (an indicative list of those not allowed is in Appendix III) and must use renewable resources
- may use ingredients derived from culture or fermentation and other non-GMO biotechnology, the cultures must use only feedstock from natural vegetable or microbial raw materials without using genetically modified organisms or their derivatives
- must comply with the following quantitative requirements for their chemically processed agro-ingredients:

Principle	Requirement
Atom economy	Reaction mass efficiency (of last reaction step): $\geq 50\%$ Reaction mass efficiency = (weight of desired product(s) / weight of all reactants) x 100
Non-persistent, non-bioaccumulative and non-toxic products	<p>Allowed are Substances/preparations that meet the following requirements:</p> <p style="padding-left: 40px;">Aquatic Toxicity (LC50, EC50, IC50) &gt; 1 mg/l and Biodegradability &gt; 95%</p> <p style="padding-left: 40px;">Aquatic Toxicity (LC50, EC50, IC50) &gt; 10 mg/l and Biodegradability &gt; 70% (or 60% depending on test below)</p> <p><i>With regards to Aquatic Toxicity:</i> Performing new fish and daphnia tests to determine unknown LC50/ EC50 values for COSMOS certification is not allowed. Instead, the use of calculation from available data based on indirect alternatives methods and in vitro tests must be used.</p> <p><i>Accepted methods for biodegradability:</i></p> <ul style="list-style-type: none"> <li>- OECD 301A (ISO 7827) or OECD 301E, percentage of degradation &gt; 70%</li> <li>- OECD 301B (ISO 9439), OECD 301C, OECD 301D (ISO 10707), OECD 301F (ISO 9408) or OECD 310 (ISO 14593) meet a percentage degradation &gt; 60%</li> </ul>

Note - Appendix VIII provides information on exemptions, namely for certain categories of ingredients for which it is not necessary to meet the atom economy or non-persistence requirements.

With the current state of development of green chemistry, it is not yet possible to specify limits or requirements for all principles. For the following principles, manufacturers of chemically processed agro-ingredients must supply information about how the principle is applied or measured:

<b>Principle</b>	<b>Requirement</b>
Energy economy (low energy use)	Information point (can be for the factory as a whole)
Absence of temporary modification (intermediary reactions)	Information point
Method of analysis (e.g. real time analysis)	Information point
Lower waste production	Information point (can be for the factory as a whole)
Limitation of accident risk	Information point

However, green chemistry is still in development. As the principles and practice of green chemistry evolve, these will be further elaborated and incorporated into this Standard.

Note - see section 12 'Implementation' for transitional period.

#### 6.1.5 Other ingredients

Certain other ingredients are allowed as long as there are no effective natural alternatives available to ensure the safety of consumers or efficacy of the product. Only those listed in Appendix V are allowed.

## 6.2 Calculation rules for organic percentage

The calculation rules below must be used to determine the proportion of organic content for each cosmetic ingredient.

Physically processed agro-ingredients or chemically processed agro-ingredients not falling within the scope of the recognised organic production systems as defined in section 4 'definitions', must be certified according to this Standard for a manufacturer to claim they have organic content that complies with this Standard. For these ingredients to be certified there is no minimum percentage of organic content.

For all ingredients, the actual organic percentage, calculated according to this Standard, must be provided in the technical documentation.

### 6.2.1 Water

Water cannot be calculated as organic. This includes water that is:

- added directly, or
- added indirectly as mixtures with or components of other ingredients, for example minerals, physically or chemically processed agro-ingredients.

The liquid (juice) content of fresh plants is not considered as water. Please refer to 6.2.3 for extracts and reconstitution of dried or concentrated ingredients.

### 6.2.2 Minerals and ingredients of mineral origin

Minerals and ingredients of mineral origin cannot be calculated as organic.

### 6.2.3 Physically processed agro-ingredients (PPAI)

- a) For physically processed agro-ingredients, using only organic primary raw materials or only organic primary raw materials and organic solvents, the organic percentage is 100%.
- b) For water-based extracts, the organic percentage is calculated as follows:

First step:

Ratio = [organic fresh plant / (extract - solvents)]

If the ratio is greater than 1, then it is counted as 1.

Second step:

% organic = {[ratio x (extract - solvents) / extract] + [organic solvents / extract]} x 100.

Conditions:

- solvent should be understood as the quantity of solvent present in the final extract
- water is not considered as a solvent
- mixtures of organic and non-organic of the same plant cannot be considered as organic.

For water-based extracts using only water, the organic percentage is calculated as follows:

% organic = (organic fresh plant / extract) x 100

- c) For non water-based extracts, the organic percentage is calculated as follows:

% organic = (organic plant\* + organic starting solvents) / (plant\* + all starting solvents) x 100.

\*fresh or dried

Conditions:

- solvent should be understood as the quantity of solvent present in the final extract. Water is not considered as a solvent.
- mixtures of organic and non-organic of the same plant cannot be considered as organic.

General conditions (for a, b and c):

- if alcohol is used as an extraction solvent, it must be organic. If an organic ingredient is extracted using non-organic alcohol, the ingredient does not count towards the organic percentage.
- if a physically processed agro-ingredient is diluted with water, non-organic solvent or carrier or mixed with other additives after processing, the organic percentage will be reduced proportionately.

- to calculate the equivalent fresh weight of dried plants in the calculation of organic content of extracts, it is possible:
  - either to use the actual dry to fresh ratio for the material (information to be provided)
  - or use the following ratios:
 

Wood, bark, seeds, nuts and roots	1 : 2.5
Leaves, flowers and aerial parts	1 : 4.5
Fruits (e.g. apricot, grape)	1 : 5
Watery fruits (e.g. pineapple, orange)	1 : 8
- it is possible to reconstitute pure concentrates and dried powders to their natural state provided:
  - the reconstitution is done before adding to a formulation, and
  - the concentrate or powder must not contain any other ingredients, additives or carriers (for example, those mixed with carriers such as maltodextrin cannot be reconstituted).

Note: freeze drying preserves quality best.

To calculate the percentage of physically processed agro-ingredient in extracts if the fresh plant is non-organic, a calculation analogous to b) or c) above must be used by substituting organic plant with plant.

#### 6.2.4 Chemically processed agro-ingredients (CPAI)

In chemically processed agro-ingredients, the organic percentage of that ingredient is calculated as the proportion (by weight) of the organic primary raw materials in that ingredient, taking into account all the starting primary materials used to make that ingredient:

CPAI % organic = [(all organic starting primary raw materials – organic starting primary raw materials in excess) / (all starting primary raw materials – all starting primary raw materials in excess)] × 100.

Conditions:

- non-reacting solvents are not considered as starting primary raw materials
- excess means the amount of starting primary raw materials that is recycled or removed later on
- if a chemically processed agro-ingredient is diluted with water, non-organic solvent or carrier, the organic percentage will be reduced proportionately
- any chemically processed agro-ingredient obtained by cleavage of 100% organic primary raw materials only would be counted as 100% organic.

Chemically processed agro-ingredients may be certified in their own right according to this Standard, however:

- there is no minimum percentage of organic content, and
- the percentage of organic content, as measured above, must be clearly displayed.



## 7. COMPOSITION

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This Standard covers two levels for finished products and two levels of ingredients:

- Cosmetic products under organic certification
- Cosmetic products under natural certification
- COSMOS certified ingredients
- COSMOS approved raw materials

The physically processed agro-ingredients (PPAI) percentage of a cosmetic product is calculated as follows:

$\% \text{ PPAI product} = \frac{\sum \text{weight of PPAI of each ingredient}}{\text{weight of all ingredients}} \times 100$

$\% \text{ ORG PPAI product} = \frac{\sum \text{weight of ORG PPAI of each ingredient}}{\text{weight of all ingredients}} \times 100$

$\% \text{ ORG product} = \frac{[\sum \text{weight of ORG PPAI of each ingredient} + \sum \text{weight of ORG CPAI of each ingredients}]}{\text{weight of all ingredients}} \times 100.$

### 7.1 Rules for cosmetic products under organic certification

#### 7.1.1 Ingredients

- At least 95% of the physically processed agro-ingredients must be organic
- The remaining physically processed agro-ingredients must be organic if they are listed in Appendix VI
- The chemically processed agro-ingredients listed in Appendix VII must be organic.

Due to the composition of products made with a high majority of CPAI (ie. soap, alcohol spritzer, perfume, toilet water, cologne water, fresh water, etc) where it is not possible to meet the >95% organic PPAI requirement, this criterion is adapted:

- For alcohol based product (alcohol  $\geq 50\%$  in formula), at least 95% of [PPAI + alcohol] must be organic:  
$$\frac{[\text{Organic PPAI} + \text{organic alcohol}]}{[\text{all PPAI} + \text{alcohol}]} > 95\%$$
- For soaps:
  - when making soaps from raw materials into finished product (use of plant oils), no change of the criterion:  $\frac{\text{organic PPAI}}{\text{all PPAI}} > 95\%$
  - when soap noodles are used and other ingredients are added use this calculation: at least 95% of [PPAI + CPAI soaps] must be organic:  $\frac{[\text{organic PPAI} + \text{organic CPAI soap}]}{(\text{all PPAI} + \text{CPAI soap})} > 95\%$

using the following equations:

$$\text{organic CPAI soap} = \frac{[(\text{organic saponification agro-ingredients} - \text{organic saponification agro-ingredients in excess}) / (\text{all saponification agro-ingredients} - \text{all saponification agro-ingredients in excess})] \times 100}$$

$$\text{CPAI soap} = \frac{[(\text{all saponification agro-ingredients} - \text{all saponification agro-ingredients in excess}) / (\text{all saponification agro-ingredients} - \text{all saponification agro-ingredients in excess})] \times 100}$$

Any ingredients that are additives and not used for saponification such as citric acid, are not considered in these equations.

- The remaining physically processed agro-ingredients must be organic if they are listed in Appendix VI.

#### 7.1.2 Total product

- At least 20% of the total product must be organic.
- By exception, for rinse-off products, non-emulsified aqueous products, and products with at least 80% minerals or ingredients of mineral origin, at least 10% of the total product must be organic.

### 7.2 Rules for cosmetic products under natural certification

There is no requirement to use a minimum level of organic ingredients (however, see 10.3 for requirements for how organic ingredients can be identified on the product labels).

Base formulas with no organic content (e.g. shampoo bases, soap bases) cannot go through the normal Approval process. Instead, they must be certified under COSMOS CERTIFIED without organic % (therefore including an on-site inspection).

### 7.3 Calculation rules for natural origin percentage

The natural origin percentage of a cosmetic product is calculated as follows:

% natural origin of total =  $[\text{weight of total product} - \text{weight of non-natural origin ingredients (Appendix V.1)} - \text{weight of petrochemical moieties (Appendix V.3)}] / \text{weight of all ingredients} \times 100$ .

### 7.4 Palm oil, palm kernel oil and derivatives

The following ingredients used in COSMOS certified products and ingredients and approved raw materials must be from organic origin or certified sustainable (CSPO) using as a minimum the mass balance supply chain model:

- palm oil (Note, must be organic for COSMOS Organic products, see Appendix VI)
- palm kernel oil
- glycerin, cocamidopropyl betaine and coco betaine
- fatty acids: stearic acid, palmitic acid, myristic acid, lauric acid
- fatty alcohols: cetyl alcohol, cetearyl alcohol, stearyl alcohol, lauryl alcohol

- esters made from fatty acids or fatty alcohols: cetyl palmitate, cetyl phosphate, myristyl myristate, glyceryl (mono-) stearate and glyceryl oleate
- triglycerides: C8-C10 caprylic/capric triglyceride and C10-C18 triglycerides.

When a Commercial Reference/blend contains all ingredients that are from the list above, they have to be from (organic or) CSPO (eg. a product containing stearic acid and palmitic acid, these have to be from CSPO.) If a commercial reference/blend contains some of the ingredients from the above list plus other ingredients not from the list (eg. an extract), none of the ingredients have to be from CSPO), although it is encouraged where possible. If an ingredient from the list has water added to it, then it still has to be from CSPO.

The minimum level required is the Mass Balance supply chain model. This means that Certified Segregated and Identity Preserved (IP) are acceptable, but Book & Claim is not.

Note: see section 12 'Implementation' for implementation.

### **7.5 Rules for Raw Materials with organic content under certification**

For the raw materials with organic content which apply for a COSMOS certification, there is no minimum percentage of organic content required as soon as there is at least one organic ingredient in that raw material.

### **7.6 Rules for Raw Materials without organic content under approval**

For the raw materials without organic content which apply for a COSMOS approval, no minimum of organic content is required.

## **8. STORAGE, MANUFACTURING AND PACKAGING**

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### **8.1 Storage**

Storage areas must be clearly labelled to avoid any confusion or risk to the integrity of the products.

### **8.2 Manufacturing**

Different manufacturing processes must be separated to prevent contamination of organic or natural ingredients.

There must be a Quality Control System which includes:

- complete traceability of ingredients and final products
- manufacturing procedures throughout all stages
- ingredient and product testing, and
- analysis, manufacturing and storage records.

### **8.3 Packaging**

Primary and secondary packaging and fabric components must meet the criteria below. Accessories sold with products, such as brushes, applicators or technical parts, do not have to comply.

8.3.1 To minimise the direct and indirect environmental impacts of packaging during its life cycle, it is required to:

- minimise the amount of material used
- maximise the amount of material that can be reused or recycled, and
- use materials with recycled content where possible.

It must be demonstrated during inspection that this has been done for each packaging format used.

8.3.2 Packaging must be reviewed against standard 8.3.1 at least every three years and it must be demonstrated that this has been done, for example by keeping minutes of review meetings, or having a formal policy requiring this.

8.3.3 All packaging materials used must be on the list of accepted materials as listed in Appendix IX.

8.3.4 It is forbidden to use these materials in packaging:

- polyvinyl chloride (PVC) and other chlorinated plastics
- polystyrene and other plastics containing styrene
- materials or substances that contain, have been derived from, or manufactured using, genetically modified organisms
- part of animals or substances produced by animals (e.g. leather, silk).

It must be proven that these materials have not been used, for example by having written confirmation from the supplier.

8.3.5 It is recognised that there may need to be exceptions for specific technical purposes (e.g. pumps, applicators, droppers, brushes) where no other materials can deliver the required properties. Applications for exceptions supported by technical dossiers will be considered.

8.3.6 Only the following propulsive gasses may be used:

- air
- oxygen
- nitrogen
- carbon dioxide
- argon.

#### **8.4 Fabrics**

Some cosmetic products include fabric components (wipes, strips, masks, pads, etc.) which may be used if they meet the following requirements:

- for COSMOS ORGANIC products, the cosmetic formula must meet this Standard and the fabric material must be 100% certified organic
- for COSMOS NATURAL products, fabric components must meet the requirements for physically and chemically processed agro-ingredients in this Standard but do not need to be organic. Lyocell and Viscose are allowed
- the weight of the fabrics is not included in the organic and natural origin calculations of the total product
- processes not allowed in the standard (refer to Appendix III) also apply to fabrics.

It is recognised that there may need to be exceptions if other materials are required and applications for exceptions supported by technical dossiers will be considered.

## 9. ENVIRONMENTAL MANAGEMENT

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### 9.1 *Environmental management plan*

9.1.1 An environmental management plan must be put in place which addresses the whole manufacturing process and all the residual products and waste resulting from this. It must be implemented effectively.

As part of the environmental management plan, a waste management plan must be put in place which addresses manufacturing waste, including gaseous, liquid and solid waste. The waste management plan must aim to reduce, reuse, recycle waste products on an efficient and rational basis.

Note - compliance with ISO 14000 or national legislation that already covers this will be accepted.

9.1.2 It is required to:

- sort cardboard, glass, paper and all other waste materials
- recycle or process this waste, and
- send all other waste to a specialized recycling firm which deals with specific packaging that it is not possible to recycle.

### 9.2 *Cleaning and hygiene*

9.2.1 It is required to use cleaning and disinfection materials in which the ingredients comply with this Standard (e.g. vegetable derived alcohol, decyl glucoside, etc.).

9.2.2 In addition, the following disinfection materials can be used:

- iso-propyl alcohol
- amphoteric surfactants
- hydrogen peroxide
- mineral acids and alkalis
- peracetic acid (and stabilising agents)
- formic acid
- ozone
- plant based surfactants which meet the following criteria:
  - o biodegradability: complying with Annex III (Ultimate biodegradability) of Regulation No. (EC) 648/2004
  - o aquatic toxicity: EC50 or IC50 or LC50 > 1 mg/l
- plant-based cleaning products certified according to standards recognised as equivalent (these are listed in the Technical Guide).

Special exemptions due to specific industry requirements (e.g. pharmaceutical / food) may be considered by the authorised certification body.

9.2.3 It must be ensured by the client that there are no residues from cleaning products.

9.2.4 An inspection system must be implemented by the client to ensure compliant cleaning/disinfection products are used before and after manufacture. This must include the procedures, data records and details of staff training.

## 10. LABELLING AND COMMUNICATION

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### 10.1 General rules

Labelling and communication must be clear and must not mislead consumers.

Note: The requirements listed below are intended to provide clear consumer information and are in line with the legal framework of most countries, but additional legal provisions may exist in some other countries.

The requirements below are further elaborated in the Labelling Guide.

### 10.2 For products under organic certification

Products under organic certification:

- must be labelled with the signature 'COSMOS ORGANIC' in conjunction with the seal of the COSMOS-standard AISBL member organisation as detailed in the Labelling Guide
- must indicate the certification body on the label
- must indicate on the label the percentage of organic origin ingredients by weight in the total product, as "x% organic of total"
- may also indicate the percentage of organic origin ingredients by weight in the total product without water and minerals (as defined in 6.2.1 and 6.2.2), as "y% organic of total minus water and minerals"

Note: you may give prominence to either of the above-percentage indications.

- must indicate the percentage of natural origin ingredients by weight in the total product, as "x% natural origin of total"
- must indicate organic ingredients and those made from organic raw materials in the INCI list. This should be limited to the wording: "from organic agriculture" for physically processed agro-ingredients and "made using organic ingredients" for chemically processed agro-ingredients or similar expressions using the same text as used for the INCI list.

The product must not be called "organic", for example, "organic shampoo", unless it is at least 95% organic, measured as a percentage of the total product.

For products that are 100% organic or 100% natural origin, the indication of the percentage natural origin is not obligatory.

In case of conflict with national laws, products can indicate the percentage of organic origin ingredients by weight in the total product, as "x% certified ingredients of total"

### **10.3 For products under natural certification**

Products under natural certification:

- must be labelled with the signature 'COSMOS NATURAL' in conjunction with the seal of the COSMOS-standard AISBL member organisation as detailed in the Labelling Guide
- must indicate the certification body on the label
- must indicate the percentage of natural origin ingredients by weight in the total product, as "x% natural origin of total"
- may indicate organic ingredients and those made from organic raw materials in the INCI list. This must be limited to the wording: "from organic agriculture" for physically processed agro-ingredients and "made using organic ingredients" for chemically processed agro-ingredients or similar expressions using the same text as used for the INCI list
- may indicate the percentage of organic origin ingredients by weight in the total product, as "x% organic of total"
- may indicate the percentage of organic origin ingredients by weight in the total product without water and minerals (as defined in 6.2.1 and 6.2.2), as "y% organic of total minus water and minerals".

Organic claims on the front of the packaging are limited to the organic content of the total product and the organic ingredient(s) concerned, and must:

- appear in text that is no more prominent than the smallest text on the front of the packaging
- appear in conjunction with the COSMOS NATURAL signature (which must therefore also be on the front and in accordance with the first bullet of the paragraph above), and
- the organic ingredients concerned are also identified in the INCI list (in accordance with the third bullet of the paragraph above).

For products that are 100% natural origin, the indication of the percentage natural origin is not obligatory.

### **10.4 For ingredients with organic content**

Ingredients under organic certification (as per 6.2.3 and 6.2.4):

- must be labelled with the signature 'COSMOS CERTIFIED' in conjunction with the seal of the COSMOS-standard AISBL member organisation as detailed in the Labelling Guide
- must indicate the certification body on the label
- must indicate clearly on the label and/or appropriate documents the percentage of organic content of the ingredient by weight in the total ingredient, as "x% organic content".



**10.5 For raw materials with no organic content**

Raw materials with no organic content that are approved (as per 6.2.2, 6.2.3 and 6.2.4):

- may be labelled with the signature 'COSMOS APPROVED' in conjunction with the seal of the COSMOS-standard AISBL member organisation as detailed in the Labelling Guide
- may indicate the certification body on the label
- must make no reference on the label or on relevant documents to the term certified or to organic.

**10.6 Supporting literature**

If any reference to organic or natural products or ingredients are made in advertising or supporting literature, they must comply with the appropriate rules in 10.2, 10.3 and 10.4.

**10.7 Organic in the name of a company or product range**

If the company name or product range includes the word organic, the use of that name or branding in conjunction with certified products must not be such that it might mislead the consumer.

**10.8 Use of the signature, name or term related to this Standard**

The COSMOS signatures, names or terms may be used in literature, advertising, publicity or websites, etc:

- if the signature is used, only in the way described in 10.2, 10.3, 10.4 and 10.5
- only in conjunction with the products or ingredients that are certified, and
- only in a way that does not mislead the consumer, for example where it might mistakenly be associated with non-certified products.

Note – the danger of such a mistake arises in particular if the name is used in documents that are connected with the marketing of any non-certified products without a clear statement explaining the situation.

## 11. CERTIFICATION AND APPROVAL

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### 11.1 Certification

To be certified for cosmetic ingredients or cosmetic products under natural or organic certification according to this Standard, it is required to fulfil the requirements described in the documents of the Scheme.

The certification delivered by an authorised certification body is based on a documentary validation and an on-site inspection. It concerns the entire process from ingredients checking to final products validation.

### 11.2 Approval of ingredients

The approval of non-organic cosmetic ingredients consists of a documentary validation without on-site inspection. The approval delivered by a certification body is not a certification: it only states that a non-organic ingredient is acceptable for use under this Standard.

It is required to:

- supply all information and documents needed for the approval as requested by the certification body, and
- declare to the certification body any changes to the processing of that ingredient that may affect its approval.

It is forbidden to label or otherwise indicate that approved cosmetic ingredients are certified according to this Standard. However, there is provision for labelling in 10.5 and as further elaborated in the Labelling Guide.

### 11.3 Certification bodies

Bodies certifying to this Standard must be (associate) members of the COSMOS-standard AISBL and must comply with the requirements defined within the Control Manual - Accreditation and Certification Requirements: the prerequisite is the accreditation according to the COSMOS standard scheme which includes compliance to ISO 17065.

Certification bodies must use the COSMOS-standard, and the COSMOS signatures, names and terms only in accordance with the requirements set out in this Standard, the Control Manual - Accreditation and Certification Requirements, and the Labelling Guide, or otherwise only with the prior written consent of the COSMOS-standard AISBL.

## **12. IMPLEMENTATION OF THIS STANDARD**

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### **12.1 Coming into force**

The standard, Version 3.1 will come into force on the 1<sup>st</sup> of June 2020.

### **12.2 Dates of application**

The standard, Version 3.1 shall apply from the 1<sup>st</sup> of June 2020.

### **12.3 Transitional measures**

This Standard, Version 3.1, does not apply to cosmetic products and raw materials which have not been certified / approved in accordance with COSMOS-standard, Version 2, section 12.2, last bullet point.

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## **APPENDIX I: PHYSICAL PROCESSES ALLOWED**

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The following criteria have been used to select these processes:

- processes which respect natural active substances that are present in ingredients
- processes which encourage good waste management and energy use and take into account ecological balance.

All EXTRACTIONS must be with natural materials with any forms of water or with a third solvent of plant origin, such as:

- ethyl alcohol
- glycerine
- vegetable oils
- honey
- supercritical CO2 ABSORPTION

ABSORPTION ON AN INERT SUPPORT CONFORMING TO THIS STANDARD

BLEACHING - DEODORISATION (on an inert support conforming to this Standard)

BLENDING

CENTRIFUGING

DECOCTION

DECOLORATION (allowed decolorizing agents: bentonite, activated charcoal, bleaching earth, hydrogen peroxide, ozone)

DESICCATION - DRYING (progressive or not, by evaporation / natural under sun)

DETERPENATION (if fractionated distillation with steam)

DISTILLATION, EXPRESSION or EXTRACTION (steam)

EXTRACTION

FILTRATION and PURIFICATION (ultra filtration, dialysis, crystallisation, ion exchange)

FREEZING

GRINDING

INFUSION

LYOPHILIZATION

MACERATION

MICROWAVE

PERCOLATION

PRESSURE

ROASTING

SETTLING AND DECANTING

SIFTING

SQUEEZING, CRUSHING

STERILISATION BY MEANS OF UV

STERILISATION WITH THERMAL TREATMENTS (according to a temperature respectful of the active substances)

ULTRASOUND

UV TREATMENTS

VACUUM

At any step of the manufacturing process:

- aqueous solutions of mineral acids (hydrochloric acid, sulphuric acid, phosphoric acid, etc.) are allowed as manufacturing auxiliaries for neutralization, purification and extraction. They are not allowed as reactants (raw material or ingredient)
- manufacturing auxiliaries are therefore not listed in the INCI list of the ingredient or cosmetic finished product.

## **APPENDIX II: CHEMICAL PROCESSES ALLOWED FOR PROCESSING AGRO-INGREDIENTS**

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The following criteria have been used to select these processes:

- processes which allow the formation of biodegradable molecules
- processes which respect natural active substances that are present in ingredients
- processes which encourage good waste management and energy use and take into account ecological balance.

ALKYLATION

AMIDATION

BIOTECHNOLOGY PROCESSES

CALCINATION of plants residues

CARBONIZATION (resins, fatty organic oils)

CONDENSATION / ADDITION

ESTERIFICATION / TRANS-ESTERIFICATION / INTER-ESTERIFICATION

ETHERIFICATION

HYDRATION

HYDROGENATION

HYDROLYSIS

IONIC EXCHANGE

NEUTRALIZATION

OXYDIZATION / REDUCTION

PHOSPHORYLATION (permitted only for ingredients for leave-on products)

SAPONIFICATION

SULPHATION/SULPHATATION

### Use of petrochemical solvents

COSMOS-standard promotes the use of natural origin solvents in the processing of chemically processed agro-ingredients. Taking account of the current state of development, petrochemical solvents may be used. Such solvents may only be used provided there are no effective natural alternatives and they are recycled and eliminated at the end of the process.

However:

- there must be no use of aromatic, alkoxyated, halogenated, nitrogen or sulphur based (except DMSO) solvents with any chemical processing of agro-ingredients
- use of formaldehyde is not allowed, even if the solvent is completely removed.

For the chemical processing of organic agro-ingredients:

- there must be no use of petrochemical solvents and/or petrochemical auxiliaries (including catalyst, anti-foaming, etc, even if removed)
- auxiliaries need to meet the ingredient requirements of this Standard
- halogenation process is not allowed (even as activating step).

At any step of the manufacturing process:

- aqueous solutions of mineral acids (hydrochloric acid, sulphuric acid, phosphoric acid, etc.) are allowed as manufacturing auxiliaries for neutralization, purification and extraction. They are not allowed as reactants (raw material or ingredient)
- manufacturing auxiliaries are therefore not listed in the INCI list of the ingredient or cosmetic finished product
- there are exemptions for sulphuric acid which is allowed for sulphation/sulphatation reactions, and for phosphoric agents which are allowed to produce phosphorylated ingredients, for leave on products only.

Specifications for phosphorylated compounds:

- permitted only for leave-on products and specific cases of rinse-off products.
- ingredients containing phosphates can be used in rinse off products, providing:
  - no halogenated phosphorus reagents are used during the manufacturing steps,
  - the phosphate content of the organic phosphate molecule is 5% or less,
  - the production facilities include their own sewage treatment plant.



## **APPENDIX III: EXAMPLES OF PROCESSES NOT ALLOWED**

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Only the processes listed in Appendix I and Appendix II are allowed. Those below represent a non-exhaustive list which only identifies the main ones that are not allowed.

ALKOXYLATION (including ETHOXYLATION and PROPOXYLATION) using ethylene oxide, propylene oxide or other alkylene oxides

BLEACHING - DEODOURISATION (on a support of animal origin)

DETERPENATION (other than with steam)

HALOGENATION (as main reaction)

IONISING RADIATION

SULPHONATION (as main reaction)

TREATMENTS USING MERCURY

TREATMENTS WITH ETHYLENE OXIDE

## APPENDIX IV: INGREDIENTS OF MINERAL ORIGIN ALLOWED

**Ingredients of mineral origin\*** may be used only if they are listed below and they must comply with relevant legislation. These substances are allowed:

- within the limitations of use listed
- or for general purposes if no limitation of use is listed.

Phosphate ingredients of mineral origin are allowed other than those listed below, but only for buffering, chelating and anti-caking properties if no other alternative is available.

The mono-, di-, tri- or poly- etc. salts of the listed 'ingredients of mineral origin' are also permitted.

*\*For minerals, see standard 6.1.2.*

INCI Name	Chemical name	Limitation of use	Examples of occurrence in nature
Aluminum Hydroxide	Aluminium Hydroxide		Bauxite (Gibbsite, Hydrargillite)
Aluminum Iron Silicates	Silica Aluminum Silicates Ceramics		Ceramics, obtained by heating of silicate minerals
Alumina	Aluminum Oxide		Corundum, clay
Aluminum Sulfate	Aluminum Sulphate		Alunogen, naturally occurring in volcanos
Ammonium Sulfate	Ammonium Sulphate		
Barium Sulfate	Barium Sulphate	Only as coating agent	
Calcium Aluminum Borosilicate	Calcium Aluminum Borosilicate		Tourmalines
Calcium Carbonate, CI 77220	Calcium Carbonate		Sediment rocks, calcite, aragonite, vaterite. Main component in marble, chalk, dolomite
Calcium Chloride	Calcium Chloride		
Calcium Fluoride	Calcium Fluoride	Only in oral cavity hygiene product	Fluorite or fluorspar, frequently occurring mineral from the mineral group of the simple halides
Calcium Hydroxide	Calcium Hydroxide		
Calcium Sodium Borosilicate	Calcium Sodium Borosilicate		
Calcium Sulfate	Calcium Sulphate		Gypsum
Cerium Oxide	Ceric Oxide		Cerit
CI 77163	Bismuth Oxychloride		Bismoclite
CI 77288	Chromic Oxide		

INCI Name	Chemical name	Limitation of use	Examples of occurrence in nature
CI 77289	Chromic Oxide hydrated		Guyanait, Grimaldiit, bracewellit, eskolaite
CI 77489	Iron Oxides		Bernalit, Feroxygit Ferrihydrite, Goethite Lepidocrocit
CI 77491			
CI 77492			
CI 77499			
CI 77510	Prussian Blue		Kafehydrocyanite
CI 77742	Manganese Violet		Derived from the breakdown of bat guano
CI 77745	Trimanganese Bis(orthophosphate)		
Copper	Copper		
	Copper Oxide		
Copper Sulfate	Copper Sulphate		Weathering product, sulphidic copper ore, chalcantite
Diatomaceous Earth	Diatomaceous Earth Calcined		
Dicalcium Phosphate Dihydrate	Calcium Hydrogen-orthophosphate	Only in oral cavity hygiene product	
Ferrous Sulfate	Iron Sulphate		
Gold	Gold		
Hydrated Silica	Silicic Acid		Quartz sand
Hydroxyapatite	Hydroxyapatite	Only in oral cavity hygiene product	Constituent of teeth enamel
Iron Hydroxide	Iron Hydroxide Oxide		
Magnesium Aluminum Silicate	Silicic Acid, Aluminium Magnesium Salt		
Magnesium Carbonate, CI 77713	Magnesium Carbonate		Magnesite, Dolomite
Magnesium Carbonate Hydroxide	Magnesium Carbonate Hydroxide		Artinite, Hydromagnesite and Dypingite
Magnesium Chloride	Magnesium Chloride		
Magnesium Hydroxide	Magnesium Hydroxide		
Magnesium Oxide	Magnesium Oxide, CI 77711		
Magnesium Phosphate	Magnesium Phosphate	Only in association with Zinc Oxide	
Magnesium Silicate	Silicic Acid, Magnesium Salt		Talc, Sepiolite, minerals of the serpentine group
Magnesium Sulfate	Magnesium Sulphate		Kieserite

INCI Name	Chemical name	Limitation of use	Examples of occurrence in nature
Manganese Sulfate	Manganese Sulphate		
Mica	Mica, CI 77019		Annite, Phlogopite, Muscovite
Potassium Alum	Alum		
Potassium Carbonate	Potassium Carbonate		In ash, in inland waters (Dead Sea, Lop Nor desert)
Potassium Chloride	Potassium Chloride		Sylvite, Carnallite, Kainite
Potassium Hydroxide	Potassium Hydroxide		
Potassium Iodide	Potassium Iodide		
Potassium Sulfate	Potassium Sulphate		
Potassium Thiocyanate	Potassium Thiocyanate	Only as additive for preservative/ anti-oxidant systems, maximum concentration 1%	
Silica	Silica		Quartz sand
Silver	Silver		
Silver Chloride	Silver Chloride		Silver ores, often together with lead-copper and zinc ores as sulphides, sulphates or oxides
Silver Oxide	Silver Oxide		
Silver Sulfate	Silver Sulphate		
Sodium Bicarbonate	Sodium Bicarbonate		Natron, mineral nahcolith
Sodium Borate	Sodium Borate		Borax
Sodium Carbonate	Sodium Carbonate		Soda (various crystal forms), in soda lakes
Sodium Chloride	Sodium Chloride		
Sodium Fluoride	Sodium Fluoride	Only in oral cavity hygiene product	Sea water, spring water
Sodium Hydroxide	Sodium Hydroxide		
Sodium Magnesium Silicate			
Sodium Metasilicate	Disodium Metasilicate		
Sodium Monofluorophosphate	Disodium Fluorophosphate	Only in oral cavity hygiene product	
Sodium Silicate	Silicic Acid, Sodium Salt		
Sodium Sulfate	Sodium Sulphate		Glauber salt; in mineral waters; mineral thenardite.
Sodium Thiosulfate	Sodium Thiosulphate	Only in soaps	

<b>INCI Name</b>	<b>Chemical name</b>	<b>Limitation of use</b>	<b>Examples of occurrence in nature</b>
Titanium Dioxide, CI 77891	Titanium Dioxide	See 5.1.1 of the Technical Guide	Anatas, brookite, rutile
Tin Oxide	Tin Oxide, CI 77861		Cassiterite in alluvial deposits
Ultramarines, CI 77007	Ultramarines		Gemstone (lapis lazuli)
Zinc Carbonate	Zinc Carbonate, CI 77950		Smithsonite
Zinc Oxide, CI 77947	Zinc Oxide	See 5.1.1 of the Technical Guide	Wulfingit, sweetit, ashoverit
Zinc Sulfate	Zinc sulphate		Goslarite

## APPENDIX V: OTHER INGREDIENTS ALLOWED

This appendix contains those ingredients that are temporarily allowed and will be reviewed on a regular basis with the aim of removing those where compliant alternatives exist. These ingredients cannot be certified as organic.

### 1. Preservatives and denaturing agents from petrochemical origin (non-natural ingredients – NNI)

Ingredient	Restrictions
Benzoic Acid and its salts	
Benzyl Alcohol	
Salicylic Acid and its salts	
Sorbic Acid and its salts	
Dehydroacetic Acid and its salts	
Denatonium Benzoate and Tertiary Butyl Alcohol and other denaturing agents for alcohol (excluding phthalates)	Only as denaturing agent for ethanol – where required by law

The percentage of these NNI do not count towards the limit of 2% petrochemical moiety in the total finished product.

### 2. Petrochemical solvents are allowed for extraction of the following agro-ingredients

Ingredient	Restrictions
Betaine	
Carrageenan	
Lecithin and lecithin derivatives	
Tocopherol/ Tocotrienol	
Oryzanol	
Annatto	
Carotenoids/ Xanthophylls	
Absolutes, Concretes, Resinoids	<i>COSMOS NATURAL</i> only
Lanolin	
Phytosterol	
Glycosphingolipids and Glycolipids	

In any event, there must be no use of aromatic, alkoxyated, halogenated, nitrogen- or sulphur-based solvents. The solvents used must be completely removed or removed to technologically unavoidable and technologically ineffective concentrations in the finished product and must be recycled.

### 3. Ingredients containing both natural origin and petrochemical moieties (PeMo)

Family	INCI accepted Note: only those substances listed in this column can be used. Where no substances are named in this column all substances in the family may be used.	Restriction of use
Tetra Sodium Glutamate Diacetate	Tetra Sodium Glutamate Diacetate	Chelating agent for soap only
<u>Dialkyl</u> Carbonate	Dicaprylyl Carbonate	
<u>Alkyl</u> amidopropylbetaine	Cocoamidopropylbetaine / Olive amidopropyl betaine/ Cocobetaine	
<u>Alkyl</u> Methyl Glucamide		
<u>Alkyl</u> amphoacetate/ diacetate		
<u>Alkyl</u> glucosidecarboxylate		
Carboxy Methyl - <u>Vegetal polymer</u>	Carboxy Methyl Cellulose (Cellulose Gum)	
<u>Vegetal polymer</u> - Hydroxypropyl Trimonium Chloride	Guar Hydroxypropyl Trimonium Chloride	Use in hair/beard products only
Dialkyl Dimonium Chloride	Distearoylethyl Dimonium Chloride	Use in hair/beard products only
<u>Alkyl</u> dimonium Hydroxypropyl Hydrolyzed <u>Vegetal protein</u>	Cocodimonium Hydroxypropyl Hydrolyzed Wheat Protein	Use in hair/beard products only

This table of ingredients that are temporarily allowed will be reviewed on a regular basis with the aim of removing those where compliant alternatives exist or replacing those with a better ecological profile.

Petrochemical moieties must not exceed a total of 2% of the total finished product.

In those ingredients containing petrochemical moieties the proportion of the petrochemical moiety is calculated as follows:

- % Petrochemical moiety = (molar weight of petrochemical part of the molecule) / (molar weight of the molecule) x 100

Those ingredients containing both natural origin and petrochemical moieties cannot be organic.

**Other ingredients**

<b>Ingredient</b>	<b>Restrictions</b>
Squalane	Vegetable origin
Carmines	
Silk	
Mother of pearl/Ostrea Shell Powder	Only from naturally dead shells, and only from wild harvest, not from food waste.
Caramel	Only allowed if reagents and processes are compliant



## APPENDIX VI: PHYSICALLY PROCESSED AGRO-INGREDIENTS THAT MUST BE ORGANIC

These physically processed agro-ingredients are considered to be available in organic form in sufficient quantity and quality and therefore must be organic in products under COSMOS ORGANIC certification.

Note: see Technical Guide for details.

The following are exempt:

- ingredients that are complex mixtures, such as perfumes and elements of perfumes
- ingredients that are extracted using petrochemical solvents (as per Appendix V.2).

The list will be reviewed and updated regularly based on the availability of organic physically processed agro-ingredients on the market.

Common name	INCI NAME
Argan	Argania Spinosa Kernel Oil
Almond	Prunus Amygdalus Dulcis Oil
Apricot	Prunus Armeniaca Kernel Oil
Camomile	Chamomilla Recutita Extract Chamomilla Recutita Flower Water Chamomilla Recutita Flower Extract Chamomilla Recutita Leaf Extract Chamomilla Recutita Flower Oil Chamomilla Recutita Oil Chamomilla Recutita Flower-leaf-stem Extract
Castor	Ricinus Communis Seed Oil
Cocoa butter	Theobroma Cacao Seed Butter
Coconut palm	Cocos Nucifera Oil
Cow's Milk	Lac
Hemp	Cannabis Sativa Seed Oil
Honey	Mel
Jojoba	Simmondsia Chinensis Seed Oil
Lemon	Citrus Limon Extract Citrus Limon Fruit Extract Citrus Limon Leaf Extract Citrus Limon Juice Citrus Limon Peel Extract Citrus Limon Oil Citrus Limon Flower Oil Citrus Limon Peel Oil Citrus Limon Leaf Oil
Macadamia	Macadamia Integrifolia Seed Oil

<b>Common name</b>	<b>INCI NAME</b>
Marigold	Calendula Officinalis Flower Oil
Olive	Olea Europaea Fruit Oil
Palm	Elaeis Guineensis Oil
Peppermint	Mentha Piperita Water Mentha Piperita Extract Mentha Piperita Leaf Water Mentha Piperita Leaf Extract Mentha Piperita Flower-leaf-stem Extract Mentha Piperita Flower-leaf-stem Water Mentha Piperita Oil
Rosemary	Rosmarinus Officinalis Extract Rosmarinus Officinalis Flower Extract Rosmarinus Officinalis Leaf Extract Rosmarinus Officinalis Flower-leaf-stem Extract Rosmarinus Officinalis Water Rosmarinus Officinalis Flower-leaf-stem Water Rosmarinus Officinalis Leaf Oil Rosmarinus Officinalis Flower Oil Rosmarinus Officinalis Stem Oil
Sage	Salvia Officinalis Oil
Sesame	Sesamum Indicum Seed Oil
Shea butter	Butyrospermum Parkii Butter Butyrospermum Parkii Butter Extract
Soya	Glycine Soya Oil
Sunflower	Helianthus Annus Seed Oil

In the case of a shortage of an organic raw material listed in Appendix VI authorised certification bodies may grant exemptions according to the rules as laid down in the Control Manual and Technical Guide.

## **APPENDIX VII: CHEMICALLY PROCESSED AGRO-INGREDIENTS THAT MUST BE MADE FROM ORGANIC ORIGIN AGRO-INGREDIENTS**

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These chemically processed agro-ingredients are considered to be available with organic origin agro-ingredients in sufficient quantity and quality and these therefore must be used for COSMOS ORGANIC CERTIFICATION.

The list will be reviewed and updated regularly based on the availability of chemically processed agro-ingredients with organic content on the market.

<b>INCI</b>	<b>Chemical name</b>
Ethanol, ethyl alcohol, alcohol	Ethyl alcohol

In the case of a shortage of an organic raw material listed in Appendix VII certification bodies may grant exemptions according to the rules as laid down in the Control Manual and Technical Guide.

## **APPENDIX VIII: EXCEPTIONS REGARDING TOXICITY AND BIODEGRADABILITY DATA**

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This data is not required for:

- naturally occurring molecules obtained by fermentation (e.g. hyaluronic acid)
- molecules resulting from a cleavage of a molecule existing in nature (e.g. maltodextrin obtained by hydrolysis of starch). Allowed cleavage reactions are enzymatic hydrolysis and hydrolysis with mineral acids or bases
- polymers, only obtained by esterification of monomers, that meet the criteria for non-persistent products as defined in 6.1.4
- hydrogenated oils and butters
- perfumes
- salts of naturally occurring molecules (obtained by solvent/physical extraction and salification to obtain associated salt). However, data for zinc salts has to be provided
- poorly soluble esters (polyesters included) resulting from esterification between acid and alcohol that meet the criteria for non-persistent products as defined in 6.1.4

For other ingredients, if no test is done, there is the possibility to submit written (bibliographic) data or to apply alternative methods such as the Read Across or QSAR approach. Note - see Technical Guide for further information.

## APPENDIX IX: PACKAGING MATERIALS

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Primary and secondary packaging, and fabric components must meet the criteria for packaging.

Accessories sold with products such as brushes or applicators, or technical parts do not need to meet the criteria for packaging.

*List of accepted materials (Non-exhaustive):*

- CA – Cellulose Acetate
- cellulose
- ceramic
- glass
- metals such as: Aluminum, Iron, Stainless Steel, etc
- paper / Cardboard
- PE – Polyethylene
- PET – Polyethylene Terephthalate
- PETG - Polyethylene Terephthalate Glycol
- PLA – Polylactic Acid
- PP – Polypropylene
- rubber (from natural origin)
- wood
- or any other material 100% from natural origin (non GMO).

The list of accepted materials applies to the main parts of the packaging, which are:

- bottle
- jar
- tube
- cap
- sachets
- boxes.

These parts have to be made with the accepted materials listed above. It applies to all kind of products: skincare, healthcare, make-up, etc. If a material is not listed above, a technical documentation can be submitted to the Technical Committee for review.

*Protection Sleeves and Over packaging*

Protection Sleeves and over-packaging are not allowed except for:

- closure system
- small products (eg: make-up products)
- solid soaps and massage bars (where it will be considered as primary packaging).

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