



# **COSMOS-standard**

**Cosmetics organic and natural standard**

**Version 2.0 – 21<sup>st</sup> October 2013**

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## 1. Introduction

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 a new 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.

This new 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 an actor for sustainable development.

## **1.2 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.

## **1.3 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**

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**

The "COSMOS-standard", includes this Standard, the Control Manual, the Labelling Rules and the Technical Guide (which contains additional interpretation and explanation).

This Standard applies to cosmetic products marketed as organic or natural and cosmetic ingredients with organic content. To be certified these products must comply with the defined criteria on:

- Origin and processing of ingredients
- Composition of total product
- Storage, manufacturing and packaging
- Environmental management
- Labelling and communication
- Inspection, certification and control.

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

## 4. Definitions

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.

« 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.

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.

« 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.

« 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.

« 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.

« 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.

« 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

### 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 may 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. Cosmetic ingredients must not be tested on animals except where required by law.

## 6. Origin and processing of ingredients

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 or plant materials 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, and
- they have been obtained using only the processes listed in Appendix I
- they do not entail the death of the animal concerned.

### **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 or plant materials 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, and
- they have been obtained using only the processes in listed Appendix I
- they do not entail the death of the animal concerned.

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	<p>Reaction mass efficiency (of last reaction step): <math>\geq 50\%</math>                      Reaction mass efficiency = (weight of desired product(s) / weight of all reactants) x 100</p> <p>The principle of Atom economy is not applicable to processes of fermentation or to perfume ingredients.</p>
Non-persistent products	<p>1) Minimum requirement for aquatic toxicity:                      LC50, EC50, IC50 &gt; 1 mg/l</p> <p>2) Relation of biodegradability to aquatic toxicity:                      - Aquatic Toxicity: EC50 &gt; 10 mg/l (daphnia)                      - Biodegradability: &gt; 70 % (or 60 % if CO<sub>2</sub> produced is measured) (OECD 301)                      or                      - Aquatic Toxicity: EC50 = 1-10 mg/l (daphnia)                      - Biodegradability: &gt; 95% (OECD 302); &gt; 70 % (or 60 % if CO<sub>2</sub> produced is measured) (OECD 301)</p> <p>3) Substances, known to be bio-accumulative and not biodegradable (do not pass OECD 301; =&gt; TEGEWA classification III = high waste water impact) are prohibited.</p> <p>In case of no data, the read across procedure in the Technical Guide must be followed.</p>

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:

Principle	Requirement
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.

### 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 previously mentioned recognised organic production systems, 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 on 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

- 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 fresh plant + organic starting solvents) / (fresh plant + all starting solvents) x 100

Conditions:

- 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 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:
    - o Wood, bark, seeds, nuts and roots      1 : 2.5
    - o Leaves, flowers and aerial parts      1 : 4.5
    - o Watery fruits      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 fresh plant with fresh plant.

#### **6.2.4 Chemically processed agro-ingredients**

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:

% 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)] x 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 of total product**

This Standard covers two levels:

- Cosmetic products under organic certification
- Cosmetic products under natural certification.

### **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.

#### **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).

### **7.3 Calculation rules for natural origin percentage**

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

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

## **8. Storage, manufacturing and packaging**

### **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**

This applies to primary and secondary packaging.

**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** These materials may be used for any piece of packaging:

- Wood
- Glass
- Aluminium
- PE [Polyethylene], PET [Poly(ethylene terephthalate)], PP [Polypropylene], PETG [Poly(ethylene terephthalate) glycol]
- Paperboard
- PLA [Polylactic acid] (non GMO)
- Any other 100% natural materials.

**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.

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. The fabric is not included in the organic calculation of the total product.
- 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.

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

### 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:
  - biodegradability: complying with Annex III (Ultimate biodegradability) of Regulation No. (EC) 648/2004,
  - 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) will be considered.

**9.2.3** It must be ensured that there are no residues from cleaning products.

**9.2.4** An inspection system must be in place 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 & communication

### 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.

### 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 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 less than 95% organic, it is allowed to make reference to the organic ingredients on the label and in promotional literature, such as "Shampoo with organic jojoba oil".

Note – some national laws do not allow a product to be called "organic" if it is less than 100% organic.

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

### 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 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".

There must not be any claim relating to organic, either ingredients or percentages, on the front of the packaging, except to indicate the organic content of the total product (and the ingredients concerned) on the front of the packaging, provided:

- it appears in text that is no more prominent than the smallest text on the front of the packaging
- it appears 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):

- may 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 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 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.

#### **10.6 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.

#### **10.7 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 and 10.4
- 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. Inspection, certification and control

### 11.1 Inspection and certification

To be certified for cosmetic ingredients or cosmetic products under natural or organic certification according to this Standard, it is required to:

- have subjected the manufacturing operation and the ingredients or products to inspection and certification by an authorised certification body; this includes any sub-contracted manufacturing plants that are used to process the ingredients or products
- hold a valid operational certificate from that body
- undergo an on-site annual inspection cycle which may include possible unannounced inspections and other additional inspections, and
- allow the certification body to take samples and carry out analysis using laboratories conforming to ISO/IEC 17025 for ingredients or contaminants either on a random basis or in case of suspicion.

### 11.2 Approval of ingredients

For non-organic cosmetic ingredients to be approved as 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 the Labelling Guide.

### 11.3 Certification bodies

Bodies certifying to this Standard must:

- be (associate) members of the COSMOS-standard AISBL
- be accredited to ISO/IEC Guide 65 (for any scope)
- be authorised according to the requirements set out in the COSMOS-standard Control Manual
- submit to annual authorisation according to the COSMOS-standard Control Manual including any investigations that may be undertaken in case of complaint or suspicion, and
- cooperate with other authorised certification bodies to ensure common interpretation and implementation of this Standard.

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 and the Labelling Guide, or otherwise only with the prior written consent of the COSMOS-standard AISBL.

## 12. Implementation of this Standard

### 12.1 Coming into force

This common and harmonised Standard, Version 2, comes into effect at the date of publication (21<sup>st</sup> October 2013). From 1<sup>st</sup> January 2014 certification of new products must be made (and therefore certificates issued) according to this Version 2.

## **12.2 The founders**

The founders shall implement this Standard latest by 31<sup>st</sup> December 2016. Existing own standards for organic and/or natural cosmetics of the founders must comply with this Standard by this date.

Until 31<sup>st</sup> December 2016, the founders may arrange certification of products according to their own existing standards for organic and/or natural cosmetics. However, there must be no reference to the COSMOS-standard terms in relation to such products.

After 31<sup>st</sup> December 2016, the founders:

- must implement certification of products according to the COSMOS-standard without additional requirements
- may continue to arrange certification for those products that were certified before that date according to their previous standards for organic and/or natural cosmetics, but there must be no reference to the COSMOS-standard terms in relation to such products.

## **12.3 Other certification bodies**

Other certification bodies must comply with the requirements in 11.3 before certifying to the COSMOS-standard. Once authorised, they must implement certification of products according to the COSMOS-standard without additional requirements, and/or existing own standards must be fully in accordance with the COSMOS-standard. If necessary the COSMOS-standard AISBL will set a transitional period for this, depending on when the authorisation has been completed.

## **12.4 Products certified during the transitional period**

Products that are certified to the COSMOS-standard during the transitional period until 31<sup>st</sup> December 2016 may continue to be certified after that date according to the standard in force at the time of their certification.

## Appendix I

### PHYSICAL PROCESSES ALLOWED

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 CO<sub>2</sub> ABSORPTION

ABSORPTION ON AN INERT SUPPORT CONFORMING TO THIS STANDARD

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

BLENDING

CENTRIFUGING

EXTRACTION

PRESSURE

DECOCTION

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

DETERPENATION (if fractionated distillation with steam)

DISTILLATION, EXPRESSION or EXTRACTION (steam)

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

FREEZING

GRINDING

INFUSION

LYOPHILIZATION

MACERATION

MICROWAVE

PERCOLATION

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.

## Appendix II

### CHEMICAL PROCESSES ALLOWED FOR PROCESSING AGRO-INGREDIENTS

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

CALCINATION of plants residues

CARBONIZATION (resins, fatty organic oils)

CONDENSATION / ADDITION

ESTERIFICATION / TRANS-ESTERIFICATION / INTER-ESTERIFICATION

ETHERIFICATION

FERMENTATION (natural / biotechnological)

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. However:

- there must be no use of aromatic, alkoxyated, halogenated, nitrogen or sulphur based (except DMSO) solvents with any chemical processing of agro-ingredients.

Solvents as defined above may only be used provided there are no effective natural alternatives and they are recycled and eliminated at the end of the process.

For the chemical processing of organic agro-ingredients:

- there must be no use of petrochemical solvent and/or petrochemical catalyst (even if removed)
- halogenation process is not allowed (even as activating step).

## Appendix III

### EXAMPLES OF PROCESSES NOT ALLOWED

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 WITH ETHYLENE OXIDE

TREATMENTS USING MERCURY (MERCURIAL SODA)

## 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.

It is allowed to use other phosphate ingredients of mineral origin than those listed below but only for buffering and chelating properties, if no other alternative is available.

*\*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		
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 Fluoride	Calcium Fluoride	Only in oral cavity hygiene product	Fluorite or fluorspar, frequently occurring mineral from the mineral group of the simple halides
Calcium Sulfate	Calcium Sulphate		Gypsum
Cerium Oxide	Ceric Oxide		Cerit
CI 77163	Bismuth Oxychloride		Bismoclite
CI 77288	Chromic Oxide		
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 Oxide		
Copper Sulfate	Copper Sulphate		Weathering product,

			sulphidic copper ore, chalcantite
Dicalcium Phosphate Dihydrate	Calcium Hydrogen-orthophosphate	Only in oral cavity hygiene product	
Ferrous Sulfate	Iron Sulphate		
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 Silicate	Silicic Acid, Magnesium Salt		Talc, Sepiolite, minerals of the serpentine group
Magnesium Sulfate	Magnesium Sulphate		Kieserite
Manganese Sulfate	Manganese Sulphate		
Mica	Mica, CI 77019		Annite, Phlogopite, Muscovite
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		
Silica	Silica		Quartz sand
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	
Titanium Dioxide, CI 77891	Titanium Dioxide		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		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

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	Denaturing agent for ethanol – where required by law

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

Ingredient	Restrictions
Betaine	
Carrageenan	
Lecithin	
Tocopherol	
Oryzanol	
Annatto	
Carotenoids/ Xanthophylls	
Absolutes*, Concretes, Resinoids	<i>COSMOS NATURAL</i> only
Lanolin	

\*It is recognised that there may need to be exceptions for COSMOS ORGANIC and applications for exceptions supported by technical dossiers will be considered.

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

Ingredient	Restrictions
Tetra Sodium Glutamate Diacetate	Chelating agent for soap only
Cocoamidopropylbetaine	
Alkylamphoacetate/ diacetate	
Alkylglucosidecarboxylate	
Dicaprylyl Carbonate	
Carboxy Methyl Cellulose (Cellulose Gum)	
Hexyl Laurate	
Guar Hydroxypropyl Trimonium Chloride	Use in hair products only
Distearoylethyl Dimonium Chloride	Use in hair products only

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.

#### 4. Other agro-ingredients

<b>Ingredient</b>	<b>Restrictions</b>
Squalane	Vegetable origin
Carmines	
Silk	

## 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.

This applies to the following:

- Ingredients made from single raw materials or simple mixtures
- Ingredients also containing additives (e.g. vegetable oils, anti-oxidants).

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
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 Peel Extract Citrus Limon Oil Citrus Limon Flower Oil Citrus Limon Peel Oil Citrus Limon Leaf Oil
Macadamia	Macadamia Integrifolia Seed Oil
Marigold	Calendula Officinalis Flower Oil
Milk	Lac
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

## Appendix VII

### CHEMICALLY PROCESSED AGRO-INGREDIENTS THAT MUST BE MADE FROM ORGANIC ORIGIN AGRO-INGREDIENTS

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.

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

INCI	Chemical name
Ethanol, ethyl alcohol, alcohol	Ethyl alcohol