

Review Articles

Authors:

Valéria Romero¹
Emiro Khury²
Laura Moretti Aiello¹
Mary Ann Foglio¹
Gislaine Ricci Leonardi¹

¹ Faculdade de Ciências Farmacêuticas, Universidade Estadual de Campinas (UNICAMP) – Campinas (SP), Brazil

² EK Consulting - São Paulo (SP), Brazil

Correspondence:

Gislaine Ricci Leonardi
Rua Cândido Portinari, 200
Cidade Universitária
13083-871, Campinas - SP, Brazil.
E-mail: gislaine.leonardi@fcf.unicamp.br

Received on: 20/09/17

Approved on: 24/09/2018

This study was performed at the Universidade Estadual de Campinas (UNICAMP) – Campinas (SP), Brazil.

Financial support: None.

Conflict of interests: None.



Differences between organic and natural cosmetics: clarifying literature for prescribers

Diferenças entre cosméticos orgânicos e naturais: literatura esclarecedora para prescritores

DOI: <http://www.dx.doi.org/10.5935/scd1984-8773.20181031087>

ABSTRACT

Some cosmetics manufacturers have sought to employ ecologically correct manufacturing processes and use ingredients sourced from biodiversity. The present paper introduces a scientific review for professionals who prescribe such products. The bibliographic survey was performed using databases and keyword searches. Cosmetic products can be conventional, natural or organic. Those classified as natural contain ingredients of natural origin, while a great part of the raw materials used in organic ones must be certified as organic. Labels indicate the type of ingredients used in natural and organic formulations, however there is no standardization, meaning that prescribers should have sound conceptual knowledge on the subject.

Keywords: Control and sanitary supervision of cosmetics; Cosmetics; Cosmetic industry; Cosmetic labeling

RESUMO

Algumas indústrias de cosméticos têm almejado a produção ecologicamente correta e o comércio de insumos provenientes da biodiversidade. É apresentada neste trabalho revisão científica para profissionais que prescrevem esses produtos. O levantamento bibliográfico foi realizado em bases de dados e pesquisas das palavras-chave. Os produtos cosméticos podem ser convencionais, naturais ou orgânicos. Os naturais contêm ingredientes de origem natural, e os orgânicos precisam conter grande parte de matérias-primas certificadas como orgânicas. Os rótulos dos produtos indicam o tipo de ingredientes usados na formulação de naturais e orgânicos, possuem diferenças, e seus conceitos devem ser bem conhecidos pelos prescritores.

Palavras-Chave: Controle e fiscalização de cosméticos; Cosméticos; Indústria cosmética; Rotulagem de cosméticos

INTRODUCTION

The search for products that can assist in the maintenance of youth and beauty has always been part of human ambitions. In light of this, the cosmetics industry has been developing in an accelerated pace, with an ever increasing supply of products. Likewise, there is an increasing demand for cosmetic products with natural appeal within the beauty sector, boosting their consumption.¹ According to the Brazilian National Sanitary Surveillance Agency (ANVISA), the definition of the term *cosmetic* classifies products into Grade 1 and Grade 2. Grade 1 refers to personal hygiene, cosmetics and perfumes that are characterized by basic or elementary properties, and do not require detailed information or restrictions on usage. According to ANVISA's indicative list, they are creams, lotions and oils for hands, body and face, makeup and deodorants. On the other hand, Grade 2 products are personal hygiene, cosmetics and perfumes that have specific indications, whose characteristics require proof of safety and / or effectiveness in addition to information on care,

usage and restrictions. Some examples would be sunscreens, antiperspirants for armpits or feet, makeup with specific benefits, perfumes, nail polishes, products for children, and straightening, curling and dying products for the hair etc.²

Information on the profile of the consumer of cosmetics is of paramount importance for understanding this specific market, given the representativeness of the sector in the wider economy. The market study developed by SEBRAE (the Brazilian Micro and Small Business Support Service) in 2010,³ based on data provided by IBOPE (the Brazilian Institute of Public Opinion and Statistics), the Class B – families whose average total income ranged from approximately US\$ 1,300.00 to US\$ 2,400.00 (*exchange rate of USD 1 = BRL 3.83 as of 24/11/2018*) – was at the top of the ranking of the hygiene and beauty care products consumption in Brazil, with a 41% share of the total sales in the country. Additionally, IBGE (the Brazilian Institute of Geography and Statistics) pointed out that the consumption of the same products by Classes C and D – families whose average total income ranged from US\$ 200.00 and USD\$ 700.00 (*exchange rate of USD 1 = BRL 3.83 as of 24/11/2018*) – corresponded to a larger percentage of the family budget as compared to that of Classes A and B, meaning that their expenditures with basic nutrition were lower than those with hygiene and beauty care products.⁴

In Brazil, there is currently a clear trend for companies to change their approach regarding environmental issues, with a legitimate objective of including this concern in their businesses and developing innovative activities. This is an international trend that has been researched in the literature and that concerns the relation between companies and the environment, regarding its economic, environmental and managerial aspects.⁵⁻⁷ Environmental issues can lead to important technological innovations, which require that companies accumulate market knowledge and scientific research that will in turn allow the development of production solutions that can yield competitive advantages.^{7,8}

The cosmetic industry has been undergoing an important transformation, with the development of ecologically correct production systems and models, as well as the trade of production inputs originated from biodiversity.⁹ It is widely accepted that since the 1990's there has been a trend of adjustment on the part of the traditional cosmetics industry towards the production of environmentally safe cosmetics, aiming at meeting the new demands of the market. Among these requirements is combining skin care with sustainable consumption. In this sense, there is a clear objective to organize an ecologically correct manufacturing process, mainly with the use of raw materials originating from sources available in each country's biodiversity.¹⁰ The consumer market for ecological correct cosmetics in Brazil is being driven by the influence of the media and entities that make consumers aware of environmental, social and ecological issues. As a result, the population is increasingly aware of issues linked to health, well being and sustainability, with more companies aligned with that trend entering the market.¹¹

Cosmetic products manufactured according to these new sustainability concepts can be termed *natural* or *organic*. In gener-

al, each country has an official definition for these two types of products, with absence of a unified reference. In order to overcome this limitation, classification systems were developed by private certification bodies and endorsed by public authorities, in order to provide conditions for controlling the claims alleged by the companies developing and manufacturing these types of product. The concept of organic cosmetics is based on organic agriculture, which differs from conventional agriculture for prioritizing the environment, social fairness, and economic growth and sustainability.¹² Awareness of environmental issues led people to become concerned not only with environmental health, but also with their own health.¹³

In addition to being made of natural raw materials, organic cosmetics are manufactured with ingredients that comply with the quality and sustainability standards established by legislation and which ensures the high quality of the organic products purchased by the final consumer. In Brazil, organic certification is defined by Law n.º. 10,831 of December 23, 2003¹⁴ and regulated by Decree N.º. 6,323 of December 27, 2007.¹⁵ There are a large number of consumers who prioritize and choose to consume natural and organic products – including cosmetics – from which they believe to derive more protection during use, and for which they are willing to pay a premium price.¹³ Many consumers buy their products based on the argument that they are natural cosmetics. This is not true in many cases, as in addition to natural ingredients, products contain other traditional chemical elements, such as preservatives and additives. Although it is still in the early stage of development, the natural cosmetics sector in Brazil has been expanding over the last decades, with revenues of US\$ 7.3 billion in 2010, according to data provided by SEBRAE (*exchange rate of USD 1 = BRL 3.83 as of 24/11/2018*).¹⁶ Although the country's economic growth has been subdued in recent years, the hygiene, perfumery and cosmetics sector has seen a much more vigorous growth over the last five years.¹⁷ Currently, there are cosmetics in the market that differ from conventional ones. The latter are not subject to environmental certification, however all types of cosmetic products require ANVISA regulation. Another factor that differentiates conventional cosmetics concerns the percentage of synthetic, petroleum-derived and genetically modified ingredients contained in the product (Chart 1).^{2, 18-20}

OBJECTIVES

To perform a systematic review of the literature on legislation and publications related to organic and natural cosmetics, aiming at producing a didactic and elucidating publication for prescribers of these products, as well as for professionals who work or intend to work with their development and registration.

METHODOLOGY

The bibliographic survey was carried out on the Medline database, using the following keywords: organic cosmetics, natural cosmetics, national and international regulations, as well as cross-references with the terms green cosmetics, phytocosmetics, natural products, ecological cosmetics and sustainability.

CHART 1: Main differences between conventional cosmetics and natural / organic cosmetics (based on Brazilian certification criteria)^{2, 18-20}

	Conventional cosmetics	Natural cosmetics	Organic cosmetics	Cosmetics manufactured with organic raw materials
Definition	Preparations made for external use in various parts of the human body (skin, capillary system, nails, lips, external genitals, teeth and mucous membranes of the oral cavity) with the sole and main purpose of cleaning, altering their appearance and/or correct bodily odors and/or protect them or keep them in good condition			
Specificities	The formulation does not need to contain certified natural and / or organic ingredients in its composition	Contains up to 5% certified organic raw materials. The remaining 95% may be composed of non-certified natural raw materials or natural raw materials allowed for natural formulations	Must contain least 95% of certified organic ingredients in its composition	Must contain a minimum of 70% and a maximum 95% of the formulation's components, with organic certification
Labeling	Must comply with ANVISA's requirements for national labeling (DRC N°. 7) of 02/10/2015	The product will be granted with the <i>Produto Natural (Natural Product)</i> stamp, printed on the packaging together with the certifying entity's name; use is not mandatory	The product will be granted with the <i>Orgânico Brasil (Brazil Organic)</i> stamp, printed on the packaging together with another specific stamp containing certifying entity's name	Information on the percentages of organic raw materials must be disclosed in the packaging

The certification

Certification is the procedure by which it is verified whether the production process of a product follows the standards to which it is subject. In the case of organic products, it is the mechanism that ensures that organic products bearing the *Organic* label or certificate were produced according to the established rules and practice.²¹ The organic certification process comprises procedures that verify the materials used, production processes, storage of raw materials, packaging, labels, premises, use of energy resources and waste treatment, in light of standards established by the certification agencies, thus assuring that a more reliable product reaches the final consumer.¹²

Organic certification is the act through which an accredited certification body grants a written guarantee that the production or a clearly identified process has been methodically evaluated and is in conformity with current organic production standards. Accreditation is the procedure through which the Brazilian Ministry of Agriculture, Livestock and Food Supply (MAPA) formally recognizes that a body is qualified to perform the conformity assessment of organic products, in accordance with the Brazilian official organic production regulations and the criteria in force.¹⁵

Certification is important due to the fact it elicits the trust of consumer and offers the assurance that an organic product is being bought.²² The government's and certifying bodies' action is fundamental for organic products to have credibility before consumers and a good position in exports, encouraging production, commercialization and scientific research.^{22, 23}

Certifiers are gaining ground, however there is still no official regulation for organic cosmetics. Thus, the certifying groups are developing their own standards.²⁴ Among the certifying agencies, the International Federation of Organic Agri-

culture Movements (IFOAM) is an international organization whose main function is to evaluate, normalize and disseminate standards for the marketing of organic products.²⁵ Several certifiers have developed their standards of organic production based on IFOAM standards.¹² In Brazil, the labeling of cosmetics, natural or organic made from organic ingredients, should firstly follow the Labeling and Classification of Cosmetics Standards established by ANVISA's Resolution (RDC 7), of 02/10/2015.² It is worth noting that at present in Brazil there is still no set of guidelines established by the official regulatory bodies that offer technical subsidy, specifications and exact percentages of ingredients for natural cosmetics, organic cosmetics or natural products with organic ingredients, for adoption and compliance of all certifying organizations. The certifying entities that meet the requirements for the certification process of these products in Brazil report to the MAPA and not to ANVISA.

Natural cosmetics

A natural cosmetic is a product that must have at least one ingredient "derived from" some natural substance, extracted directly from a plant rather than being synthesized. There is still no legal definition of the minimum ingredient content derived from a natural substance to characterize the natural cosmetic.²¹ Currently, raw materials / ingredients can be classified as natural and receive the certification if in compliance with the requirements and demands pertaining to the list of materials allowed by the certifying entity.

As per the ISO / FDIS 16128,²⁰ guidelines on technical definitions and criteria for organic ingredients and cosmetic products, natural ingredients should be obtained only from plants, animals, microorganisms and minerals.

Ingredients obtained from genetically modified plants can also be deemed as natural ingredients in certain regions of the world.

There are also natural cosmetics containing percentages of organic ingredients. An organic product is a natural product, however the reverse is not necessarily true. Their production, use and disposal should cause the least possible impact on the environment. Products must be of high quality, clearly labeled for consumer advice, and harmless to humans, while animal testing is ruled out. Cosmetics made with organic ingredients should have the organic ingredients discriminated on their labels.

Organic cosmetics

An organic cosmetic must have at least 95% organic ingredients in its composition. According to ISO 1612 819, organic cosmetics are those containing cosmetic ingredients of organic origin or mixtures of organic and natural ingredients obtained by chemical and / or biological processes defined with the intention of chemical modification, that do not contain any unit of fossil fuel origin.

Once all requirements of the certifying company for organic cosmetics have been met and the complete certification process has been approved, the organic cosmetic manufacturer will receive authorization from the certifying company to add the *Orgânico Brasil* (Brazil Organic) stamp in its packaging, as shown in Figure 1.²⁶

DISCUSSION

Cosmetics must safe products for in order to be freely marketed, they must comply with ANVISA's rules, which regulate the sector and also specify which raw materials can be used.

Cosmetics can be prepared with natural or synthetic substances; nevertheless there is a increasing trend towards the use of natural ingredients in cosmetic products. As examples natural ingredients used in cosmetic products, it is possible to quote those of plant, mineral, marine, biotechnological and animal origins.

Natural cosmetics and organic cosmetics aim at eliminating as much synthetic substances as possible from the final products. Regardless of whether they are traditional, natural or organic cosmetic products, they are all subject to the same rules from the sanitary point of view.



FIGURE 1: Example of *Orgânico Brasil* (Brazil Organic) stamp as regulated by the Brazilian MAPA.²⁶

In the case of natural and organic cosmetics, natural ingredients of animal origin are considered as those whose extraction does not cause pain or suffering to the animal. In face of the fact that the organic industry has been a significant driver of economic growth, the use of natural and / or organic ingredients in cosmetic formulations is in line with this market trend.

In Brazil, there is still no legislation regulating natural and organic cosmetics. Consequently there is no Brazilian standard, unique definition, or even regulated by law, that defines what is an organic cosmetic. Conversely, there are companies that, according to their own guidelines, perform analyzes of products and either certify or not them as being organic or natural. These companies are termed *certifiers*. There are Brazilian and foreign certifiers, with differences between them regarding the parameters required for the certification of raw materials and final products.

For example, there is a Brazilian certifier that specifies that a cosmetic product can be considered organic when it contains at least 95% of organic certified raw materials. The remainder of the raw materials in the formulation may be, for example, water, natural raw materials originated from agriculture or non-certified extractivism or even raw materials allowed for organic formulations, meaning that they cannot ever contain silicone or petroleum-derived substances). Therefore, in order to develop an organic product a greater amount of organic raw and certified materials are required than to develop a natural product. In order to be considered natural, the product must also have a high percentage of natural ingredients and cannot contain more than 5% of synthetic substances (synthesized in the laboratory). In addition, it cannot contain synthetic colorants and petroleum-derived ingredients.

There are differences between certifiers, however all use parameters that differentiate traditional cosmetics from natural and organic ones. When a product is approved according to a specific certifier's criteria, it is granted a stamp to be added to the label, indicating that the product was produced in compliance with some rules.

The bodies for control and certification of organic products only emerged in the 1990's, nevertheless the environmental issue began to be globally questioned, reformulated and rethought in a new way in the beginning of the 1970's. From that point forward, countries and international governmental and non-governmental organizations have become aware of the environmental issues that the whole world is now facing. In the 1980's the population became aware of the risks, with this perception maturing in the 1990's, when a new manufacturing model, focusing on environmental issues, started to be demanded from the productive sector.²⁵ The destruction of natural resources occurs unconsciously, causing the exhaustion of ecosystems. The pursuit of profitability over natural resources overestimates the immediate exploitation and overlooks long run preservation. As a result, these stances tend to lead to the destruction of reserves.²⁷

The cosmetic industry comprises several segments, with different sizes. They may be local – most of which micro and

small firms, or leading national and transnational companies – which hold all or some of the production stages, from the processing of extracts to the development of the finished product.¹⁰ Some cosmetics manufacturers have been concerned with the development of ecologically sound production models, as well as with the trade of ingredients originated from biodiversity.⁹ There is a sizeable group of consumers who prioritize the exclusion of the use of petrochemical products, choosing natural and organic products instead. This group sees a greater level of safety in the use of that category of cosmetics, meaning that they are willing to pay a premium price for them.¹²

Nonetheless, it is still considerably difficult to develop an organic cosmetic product. Most companies choose to start addressing the environmental issue by the natural ingredient that is easier to be found. In addition, when used at high concentrations, as recommended by the standards defined by certifiers or regulatory bodies, natural / organic ingredients pose additional difficulties in stabilizing the cosmetic products for adequate shelf life and ensuring comfort and safety for the consumer. Consumers demand natural products, however efficiency and cosmetic pleasure (pleasant sensation) are indispensable. As a result, consumers often prefer traditional formulations with pleasant sensorial over natural or organic formulations, with sensory unpleasantness.

Brazil has great potential to be a major supplier of natural raw materials to the cosmetic industry. The use of exotic fruits and seeds of the Amazon region, such as *açai*, *cupuaçu*, *andiroba* and *buriti* extracts, has had great appeal in this market. On the other hand, Brazilian legislation has hampered the massive production of products with Brazilian raw materials, since in other countries there are diverse rules that facilitate the commercialization of natural and organic ingredients.

European countries and the United States are the major consumers of organic products – especially Germany that consumes 50% of all European consumption.²⁸

Organic products are increasingly gaining ground in the cosmetics markets due to the fact that they comply with the rules requiring absence of use of pesticides, employing natural ingredients that are not genetically modified, also banning animal testing and supporting the conservation and preservation of the environment with a view to stimulating sustainability. In general, companies are aware of and in fact know the regulatory standards defined by certifying entities required for the product to be granted with the stamp confirming it is an organic cosmetic product. However, these companies have criticized the lack of a unified regulation for the cosmetic industry. The organic law that will specifically regulate organic cosmetics does not exist yet in Brazil. Currently, this legislation is under the MAPA's umbrella of responsibility and is considerably efficient for food products.

It is important to note that cosmetics manufacturers should further improve the research and development of natural

or organic, efficacious and cost-effective products. The impact of the current industrial society on the environment will depend on the every day choices that are made regarding consumer products, which are taken into companies and homes. The population's awareness about the need to protect the environment, for social justice, and economic sustainable growth can make the consumption of organic products feasible, by making them more affordable.

It is also worth noting that cosmetics market players are already in possession of scientific research and technologies that demonstrate that the benefits of natural / organic products are the same as those offered by conventional products. The main differences between these types of product may correspond to specific requirements of some markets in terms of shelf lives longer than two years (for cosmetic products) or regarding the maintenance of some specific organoleptic characteristics (appearance, color, aroma), which are only obtained with synthetic resources. It is of paramount importance to clarify that natural cosmetics are not organoleptically inferior to – but only different from – those formulated with synthetic ingredients. In light of this, an important part of the market growth process lies in the consumers' acceptance of and familiarity with the new sensations offered by this product category.

Massive dissemination of benefits to the population will certainly create an attractive demand, fomenting easier access to these products and promoting the sustainability of Planet Earth.

It is also important that the professional prescribing the product is knowledgeable about the information contained in the labels of dermocosmetic products, as well as about the differences between traditional, natural and organic cosmetics. In addition, scientific studies with ability to verify the real benefits of these different types of products for human health should be encouraged, since their increasing use is a worldwide trend.

CONCLUSIONS

Cosmetics can be prepared with natural or synthetic substances.

The development of natural and organic cosmetics is aimed at eliminating as much as possible synthetic substances from the end products.

There are differences between the standards of natural and organic cosmetic products certifiers, however cosmetics that are deemed as being natural contain a large number of natural ingredients, which, nevertheless, do not need to be raw materials certified as organic.

Organic cosmetic products contain a large number of ingredients of natural origin, and much of it needs to be certified as organic raw material – meaning that organic products are finished products developed with raw materials certified by recognized entities.

The product's label must indicate the type of ingredient used in the formulation. ●

REFERENCES

1. Poli Neto P, Caponi S. A medicalização da beleza. *Interface - Comunic, Saúde, Educ.* 2007;11(23):569-84.
2. Agência Nacional de Vigilância Sanitária (Brasil). Resolução N° 7, de 10 de fevereiro de 2015. Dispõe sobre os requisitos técnicos para a regularização de produtos de higiene pessoal, cosméticos e perfumes e dá outras providências. *Diário Oficial da União* 10 fev 2015.
3. Funcex.org.br [Internet]. Cosméticos à base de produtos naturais [acesso 20 set 2017]. Disponível em: http://www.funcex.org.br/material/redemercosul_bibliografia/biblioteca/ESTUDOS_BRASIL/BRA_167.pdf.
4. Abep.org [Internet]. Brazilian Criteria 2015 and social class distribution update for 2016 [acesso 20 set 2017]. Disponível em: <http://www.abep.org/Servicos/Download.aspx?id=13>.
5. Miles M, Covin J. Environmental marketing: a source of reputational, competitive and financial advantage. *J Bus Ethics.* 2000;23(3):299-311.
6. Sharma S. Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Acad Manage J.* 2000;43(4):681-97.
7. Nascimento LF. Gerenciamento Ambiental Estratégico. Material do Programa de Pós-Graduação em Administração Universidade Federal do Rio Grande do Sul, 2000.
8. Daroit D, Nascimento LF. A busca da qualidade ambiental como incentivo à produção de inovações. In: 24° Encontro da ANPAD; 2000 set; Florianópolis (SC).
9. Chávez MGG. O mais profundo é a pele: sociedade cosmética na era da biodiversidade [tese]. Florianópolis (SC): Universidade Federal de Santa Catarina; 2004. 249 p.
10. Observatoriogeograficoamericalatina.org.mx [Internet]. Miguel L. Experiências sobre a utilização de biodiversidade: as bioindústrias de cosméticos na Amazônia brasileira [acesso em 20 set 2017]. Disponível em: <http://observatoriogeograficoamericalatina.org.mx/egal12/Procesosambientales/Usoderecursos/28.pdf>.
11. Rocha JO. Hábitos de consumo de cosméticos naturais na cidade de Porto Alegre [monografia]. Porto Alegre (RS): Universidade Federal do Rio Grande do Sul; 2016. 61 p.
12. Ribeiro C. Cosmético: orgânico, com matérias-primas orgânicas e naturais. São Paulo; 2009.
13. Lyrio ES, Ferreira GC, Zuqui SN, Silva AG. Recursos vegetais em biocosméticos: conceito inovador de beleza, saúde e sustentabilidade. *Natureza on line.* 2011;9(1):47-51.
14. Brasil. Lei n° 10.831, de 23 de dez. 2003. Dispõe sobre a agricultura orgânica e dá outras providências. *Diário Oficial da União* 24 dez 2003; Seção 1, p.8.
15. Brasil. Decreto N° 6.323, de 27 de dezembro de 2007. Regulamenta a Lei no 10.831, de 23 de dezembro de 2003, que dispõe sobre a agricultura orgânica, e dá outras providências. *Diário Oficial da União* 28 dez 2007; Seção 1, p.2 - 8.
16. Sebraepr.com.br [Internet]. Fábrica de cosméticos ecológicos [acesso 20 set 2017]. Disponível em: <https://www.sebraepr.com.br/Sebrae/Portal%20Sebrae/Anexos/F%C3%A1brica%20de%20Cosm%C3%A9ticos%20Ecol%C3%B3gicos.pdf>.
17. Abihpec.org.br [Internet]. Panorama do Setor de Higiene Pessoal, Perfumaria e Cosméticos [acesso 20 set 2017]. Disponível em: <https://abihpec.org.br/publicacao/panorama-do-setor-2016-2/>.
18. Ibd.com.br [Internet]. Diretrizes para a certificação de produtos de saúde e beleza orgânicos e naturais e para ingredientes orgânicos e naturais [acesso 20 set 2017]. Disponível em: http://ibd.com.br/Media/arquivo_digital/71292117-4c11-45de-a1ce-5885ef2149b8.pdf.
19. ISO/DIS 16128 - 1:2015(E). Guidelines on technical definitions and criteria for natural & organic cosmetic ingredients and products - Part1: Definitions for ingredients. International Organization for Standardization; 2015.
20. ISO/DIS 16128 - 2:2015(E). Guidelines on technical definitions and criteria for natural & organic cosmetic ingredients and products - Part2: Criteria for ingredients and products. International Organization for Standardization; 2015.
21. Neves K. Cosméticos orgânicos e naturais: equilíbrio entre homem e meio ambiente. *Cosm & Toil.* 2007;19(4):28-29.
22. Carvalho, YMC. Agroecologia e regulação: contribuição metodológica para o fortalecimento de um processo social. In: Ambrosano E, coordenador. *Agricultura Ecológica*. Guaíba: Agropecuária; 1999. p. 265-301.
23. Assing L. Análise comparativa de normas oficiais e regulamentos de produção orgânica válidos para os mercados dos Estados Unidos, da Europa e do Brasil [monografia]. Florianópolis (SC): Universidade Federal de Santa Catarina; 2009. 68 p.
24. Bispo M. Cosméticos verdadeiramente orgânicos. *Cosm & Toil.* 2008;20(5):50-2.
25. Schimaichel G, Resende J. A importância da certificação de produtos orgânicos no mercado internacional. *Rev Eletr Lato Sensu.* 2006;(1):3-5.
26. Agricultura.gov.br [Internet]. Orgânicos [acesso 20 set 2017]. Disponível em: <http://www.agricultura.gov.br/assuntos/sustentabilidade/organicos>.
27. Homma A. Extrativismo, biodiversidade e biopirataria na Amazônia [Internet]. Brasília: EMBRAPA; 2008. Available from: <http://ainfo.cnptia.embrapa.br/digital/bitstream/item/92445/1/sge-texto-28.pdf>.
28. Neves K. Beleza Ecológicamente Correta. *Cosm & Toil.* 2010;22(1):22-32.

DECLARATION OF PARTICIPATION:

Valéria Romero |  ORCID 0000-0002-3278-5223

Substantial contribution to the conception and design of the study; data collection and interpretation

Emiro Khury |  ORCID 0000-0002-7774-3254

Approval of the final version of the manuscript. Contributions to the data analysis and interpretation

Laura Moretti Aiello

Drafting of the manuscript

Mary Ann Foglio |  ORCID 0000-0001-7715-4452

Review of the intellectual contents

Gislaine Ricci Leonardi |  ORCID 0000-0002-7126-1326

Substantial contributions to the concept and design of the study; data analysis and interpretation. Approval of the final version of the manuscript