Designed by Nature

ORGANIC TOCOPHEROLS

When your formulation is organic, your antioxidant can be too.

Food • Cosmetics • Nutraceuticals

A guide for formulators, R&D and procurement
2026

Btsa

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1 Beyond natural origin

In a formulation, every ingredient helps define the final product: its functionality, positioning and the attributes communicated to the market.

Tocopherols are used for their antioxidant function. However, when a brand aims to develop certified organic products, the ingredient's status and the documentation supporting it also matter.

The difference lies in being able to choose a tocopherol that combines an antioxidant function with organic certification applicable to the target market.

Your ingredients are organic. Your antioxidant can be too.



Organic Tocopherols: When your formulation is organic, your antioxidant can be too

2 Natural vs. certified organic: what's the difference?

"Natural" and "certified organic" do not mean the same thing.

Natural tocopherols are derived from plant sources. However, natural origin alone does not guarantee that an ingredient meets the requirements for organic certification.

Organic certification provides a verifiable framework: it allows compliance with applicable requirements to be documented and supports the ingredient's traceability according to the relevant standard and scope.

Natural origin	Organic certification
Describes the ingredient's origin or nature, according to the product information.	Certifies compliance with the requirements of an applicable organic standard.
On its own, it does not mean that the ingredient is certified organic.	Supports the ingredient's organic status through the certificate and its scope.
May be relevant when selecting ingredients.	May be relevant to formulations and products seeking organic positioning, subject to applicable requirements.

Certification of an ingredient does not automatically make the final product organic. The complete product must meet the relevant requirements and use claims permitted in its market.

3 An antioxidant aligned with your formulation

When oils, extracts and other ingredients in a formulation are organic, **choosing an antioxidant with organic certification** can help maintain consistency across the ingredients and the product's positioning.

This may be relevant to:

- **Formulation consistency**: the antioxidant can align with the selection of organic ingredients.
- **Traceability**: certified documentation can support the ingredient's status within the scope of the certificate.
- **Positioning**: it offers an option for brands developing organic, natural or premium products.
- **Functionality**: it enables antioxidant protection to be incorporated into the formula; dosage and performance must be validated in each matrix.

The main differentiator from conventional natural tocopherols is the certification and the traceability that supports it.

4 Organic certifications

Organic certification attests that an ingredient meets the requirements of a given standard. For tocopherols, it provides a differentiator from those of natural origin that are not organically certified.

BTSA holds certifications for the United States and European Union markets:

- **USDA Organic Certification**, for the US market.
- **European Organic Certification**, for the European market.
- **COSMOS CERTIFIED** – Organic Certification for Cosmetic Ingredients

The applicable certification and the products included depend on the certificate and its scope. Therefore, it is advisable to check the current documentation before selecting an ingredient or making a claim.

4.1 USDA Organic Certification

USDA Organic is the organic standard of the United States Department of Agriculture. Products certified as "USDA ORGANIC" are produced in accordance with the **NOP standards**. The NOP (National Organic Program) is a federal regulatory program of the U.S. Department of Agriculture (USDA) that develops and enforces national standards for organically produced agricultural products sold in the United States.

USDA Organic Certification

4.2 European Organic Certification

European Organic Certification attests compliance with the applicable organic requirements in the European Union, within the scope indicated in the certificate. Organic-certified products in Europe are produced in accordance with Regulation (EU) 2018/848.

Certification of an ingredient does not automatically make the final product organic. To market or label it as such, the formula and process must meet the applicable requirements.

Before including a claim on a label or in marketing materials, it is advisable to confirm:

- Which products are included in each certificate.
- The scope of the certification and the markets it applies to.
- What documentation accompanies the ingredient.
- Which claims may be made about the ingredient and the final product.
- The requirements applicable to each category and market.



European Organic Certification

4.3 COSMOS CERTIFIED – Organic Certification for Cosmetic Ingredients

COSMOS CERTIFIED is an internationally recognized certification for cosmetic raw materials containing organic content that comply with the COSMOS Standard. It verifies compliance with specific requirements for ingredient sourcing, processing, manufacturing and traceability.

Unlike COSMOS APPROVED, which applies to non-organic raw materials accepted for use in COSMOS-compliant formulations, COSMOS CERTIFIED specifically recognizes **ingredients with certified organic content**. COSMOS ORGANIC and COSMOS NATURAL, on the other hand, apply to finished cosmetic products.

As EU Regulation 2018/848 does not provide an organic certification framework for finished cosmetics, the COSMOS Standard offers a dedicated certification system for the cosmetics industry.

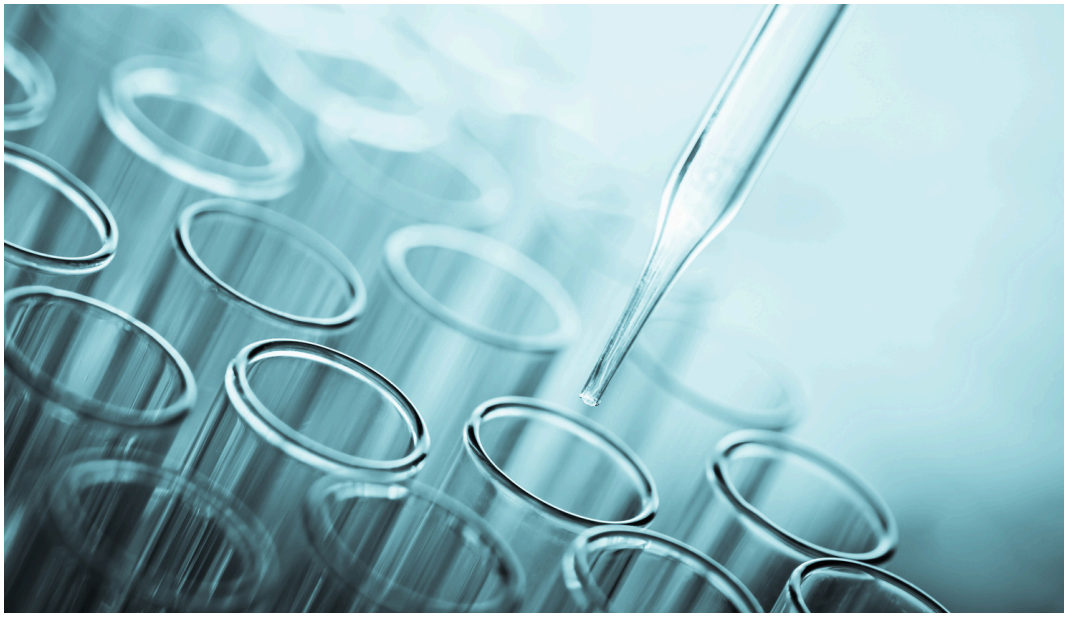
COSMOS CERTIFIED – Organic Certification for Cosmetic Ingredients

5 Antioxidant protection and added value

Tocopherols perform an antioxidant function in formulations containing fats and oils. The **selection of profile, dosage and format** will depend on the product's composition and processing and storage conditions.

In an organic formulation, the aim may be to combine that function with an ingredient holding the relevant organic certification.

Validation must be carried out in the actual matrix. Results may vary depending on the type of product, the other ingredients, the process, the packaging and storage conditions.



Organic Tocopherols: When your formulation is organic, your antioxidant can be too

6 Market-specific opportunities for certified organic tocopherols

Certified organic tocopherols offer more than antioxidant functionality. For manufacturers developing products with organic positioning, ingredient certification can **support sourcing decisions, certification strategies and formulation development**.

The relevance of an organic antioxidant differs across markets, depending on the certification frameworks, product requirements and claims that brands aim to pursue.

6.1 Food industry: beyond natural antioxidant protection

In the food industry, natural-origin antioxidants are widely used to help protect fats and oils against oxidation. However, for manufacturers developing certified organic foods, natural origin alone may not be sufficient to meet their ingredient selection criteria.

Certified organic tocopherols offer three key advantages:

- **Supporting organic product development**: an organically certified antioxidant can help manufacturers align their ingredient selection with the requirements of organic food formulations, rather than relying solely on natural-origin ingredients.
- **Flexibility across certification frameworks**: access to ingredients certified under recognised organic standards, such as USDA Organic and the European Union organic framework, can support product development for different markets. This is particularly relevant for manufacturers supplying both European and US customers, subject to the applicable certification scope and requirements.
- **Traceability and documentation**: organic certification provides documented evidence of the ingredient's status, supporting quality assurance, supplier qualification and regulatory assessments.

For food manufacturers, selecting an organic tocopherol is therefore not only a formulation decision. It can also be part of a broader strategy to develop organic product portfolios and address the requirements of different target markets.

6.2 Cosmetics: supporting certified organic beauty formulations

In cosmetics, organic positioning extends beyond the origin of individual ingredients. Brands must consider the requirements of the certification scheme they intend to follow, the composition of the finished formula and the claims they wish to communicate.

Certified organic tocopherols can support this approach in several ways:

- **Compatibility with organic cosmetic development**: selecting an appropriately certified ingredient can help formulators build products aligned with their organic sourcing strategy
- **Relevance to COSMOS certification**: for brands pursuing COSMOS certification, ingredient status and the applicable certification body's assessment are important considerations. An organic tocopherol may be relevant to the formulation strategy, provided it meets the requirements applicable to its intended use.
- **Ingredient transparency and traceability**: documented organic status supports ingredient verification and the technical documentation required during product development and certification assessments.
- **Combining functionality with organic positioning**: tocopherols help protect the lipid phase of cosmetic formulations against oxidation. Choosing an organic-certified option allows formulators to consider this functionality alongside their ingredient sourcing and product positioning objectives.

For cosmetic manufacturers, the value lies in selecting an antioxidant that addresses formulation needs while supporting the requirements of the intended organic certification pathway.

6.3 Nutraceuticals: organic positioning and ingredient transparency

The nutraceutical market increasingly offers products differentiated by ingredient quality, sourcing and formulation positioning. For brands developing organic supplements, the choice of tocopherols can contribute to the overall ingredient strategy.

Certified organic tocopherols offer relevant opportunities for nutraceutical manufacturers:

- **Supporting organic supplement development**: an appropriately certified tocopherol can be considered when selecting ingredients for supplements pursuing organic positioning, subject to the requirements of the target market and certification scheme.
- **Flexibility for international markets**: organic certification under relevant frameworks can support ingredient selection for products intended for different geographical markets, provided the certification and its scope meet the applicable requirements.
- **Documented sourcing and traceability**: certification provides supporting documentation that can be valuable for supplier qualification, quality assurance and the substantiation of ingredient-related information.
- **Formulation functionality**: depending on the formulation, tocopherols may contribute vitamin E or help protect oxidation-sensitive lipids and other ingredients. These are distinct objectives and should be evaluated separately during product development.

For nutraceutical brands, organic-certified tocopherols offer an additional ingredient-selection option that brings together formulation functionality, documented organic status and the intended product positioning.

7 BTSA organic solutions

BTSA offers a range of **organic tocopherols for food, cosmetics and nutraceuticals**. Each solution addresses the formulation needs of its market.

Market	Product
Food	**Tocobiol® Organic**
Cosmetics	**Bioxan® Organic**
Nutraceuticals	**Nutrabiol® Organic**

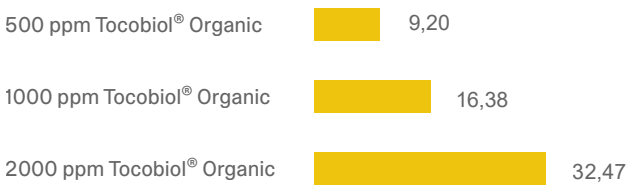
7.1 Tocobiol® Organic — Food

Tocobiol® Organic is designed for food manufacturers and brands producing under organic certification. It allows them to incorporate antioxidant protection while keeping their ingredient list consistent with their organic claims. It may be considered for products containing oils or fats, depending on the application and the formula's requirements.

Focus: certified organic tocopherols that protect against oxidation without compromising the organic status of the final product.

In food products containing oils and fats, oxidation can affect quality and freshness. Tocobiol® Organic's performance was evaluated in organic sunflower oil using Rancimat at 120°C.

Sunflower Oil at 120°C
Oxidative Stability
Increase (%)



Bakery products can also be susceptible to oxidation, particularly when they have a high fat content. Tocobiol® Organic was evaluated in an organic bakery product using the RapidOxy method at 140°C.

Bakery Product at 140°C
Oxidative Stability
Increase (%)



These results reflect performance under the stated test conditions and should not be interpreted as direct measurements of commercial shelf life.

7.2 Bioxan® Organic — Cosmetics

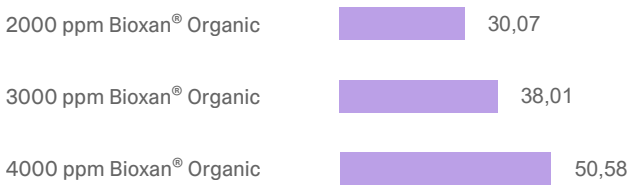
Bioxan® Organic is intended for cosmetic brands and manufacturers developing formulations under the COSMOS Organic standard. It offers an organic tocopherol that fits the ingredient requirements of certified organic cosmetics. It may be an option for products with an oil phase, depending on the formula's composition and the requirements for the final product.

Focus: organic antioxidant protection designed for COSMOS Organic cosmetic formulations.

Anhydrous, oil-rich cosmetic products (including balms, oils, butters and serums) are particularly susceptible to oxidation. This can alter odor and color, affect product quality and compromise the integrity of sensitive ingredients. An antioxidant can help protect the lipid phase; its suitability and dosage should be validated in the specific formula.

To assess its performance in this type of formulation, Bioxan® Organic was tested in an anhydrous cosmetic organic balm using the RapidOxy method at 100°C. The test compared the balm without antioxidant with samples containing 2,000, 3,000 and 4,000 ppm Bioxan® Organic.

Balm at 100ºC
Oxidative Stability
Increase (%)



7.3. Nutrabiol® Organic — Nutraceuticals

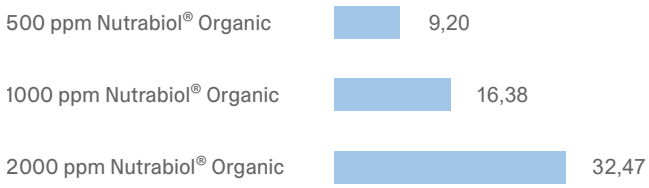
Nutrabiol® Organic is intended for nutraceutical formulations that require organic antioxidant protection. It offers certified organic tocopherols to protect oxidation-sensitive ingredients in organic products.

Focus: organic antioxidant protection for nutraceutical products.

Designed for organic nutraceutical formulations, Nutrabiol® Organic is based on a mixture of tocopherols and can help protect oxidation-sensitive active ingredients. It can be considered for applications such as food supplements and softgel capsules; its suitability and dosage should be validated in the specific formulation.

Its antioxidant performance was evaluated in organic sunflower oil using Rancimat at 120°C. The results reflect performance under the stated test conditions and should not be interpreted as direct measurements of commercial shelf life.

Sunflower Oil at 120°C
Oxidative Stability Increase (%)



OTHER BTSA ORGANIC PRODUCTS

- **Ecoflax®** is an organic, cold-pressed flaxseed oil with a high linolenic acid content that has been stabilized with our own antioxidants (natural tocopherols), making it a 100% plant-based Omega-3 suitable for food and nutraceutical applications.

8 Key questions when choosing an organic tocopherol

Before selecting an ingredient, it is advisable to clarify:

1. Does the target market require a specific organic certification?
2. Which certificate and scope apply to the selected product?
3. What documentation does the quality or procurement team need?
4. How will the ingredient be incorporated into the formulation?
5. Which dosage and conditions of use need to be validated in the actual matrix?
6. Which claims may be made about the ingredient and the final product?

9 Conclusions

- “Natural” and “certified organic” are not equivalent: natural origin alone does not certify organic status.
- The main differentiator of certified organic tocopherols lies in their certification and associated traceability.
- If a formulation uses organic ingredients, an organic antioxidant can help ensure consistency in ingredient selection.
- Tocopherols retain their antioxidant function; their performance and dosage must be validated for each matrix.
- BTSA offers organic solutions for food, cosmetics and nutraceuticals: Tocobiol® Organic, Bioxan® Organic and Nutrabiol® Organic.
- Certification of the ingredient does not automatically certify the final product. The scope, regulations and claims permitted in each market must be confirmed.

10 References and documentation

- BTSA, USDA Organic Certification.
- BTSA, European Organic Certification.
- BTSA, COSMOS CERTIFIED – Organic Certification for Cosmetic Ingredients.
- Current certificates, technical data sheets and regulatory documentation for Tocobiol® Organic, Bioxan® Organic, Nutrabiol® Organic and Ecoflax®.

Note: This document is for informational purposes and is subject to technical and regulatory review. Certifications, product scope, applications, dosages and claims must be confirmed against current BTSA documentation and the requirements of the target market before publication or industrial use.

Designed by Nature

ORGANIC TOCOPHEROLS

When your formulation is organic, your antioxidant can be too.

Contact Btsa today to begin your next formulation project:

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