

oxabiol.

Natural solutions for
longer shelf life &
improved nutrition

btsa.com

Designed
by Nature

Btsa



Designed by Nature

BTSA has a specific product line of natural ingredients and additives for animal feed products aimed especially at improving the quality of food of farm animals and pets.

We have been developing natural solutions to ensure a longer shelf life and better nutrition since 1994. These include natural antioxidants and active ingredients such as Natural Vitamin E and Omega 3, which protect and preserve nutritional quality for greater animal welfare.

Good animal nutrition has a positive impact on their quality of life. The incorporation of antioxidants and natural additives in products intended for animal nutrition contributes to maintaining a strong immune system, provides better resistance to diseases and increased longevity.

Products

Product	OXABIOL® Organic	OXABIOL® Blends	OXABIOL® T	OXABIOL® E
Description	Tocopherol-based on natural antioxidant	Synergistic blends based on Oxabiol	Mixed Tocopherol concentrates	Natural Vitamin E
Composition	Organic Tocopherol, Monoglycerides, Squalene, Sterols	Oxabiol®+ other AOXs (Rosemary Extract, Green Tea Extract, Ascorbyl Palmitate)	Tocopherol	d-alpha Tocopherol / d-alpha Tocopheryl Acetate
100% Natural	●	●	●	●
Organic Compliant	●			
Soybean Base	●	●	●	●
Sunflower Base		●	●	
Non-GMO	●	●	●	●
FAMIQS	●	●	●	●
Allergen Free	●	●	●	●

Antioxidant Systems



Oxidative rancidity is the process in which fats produce unpleasant organoleptic compounds due to exposure to oxygen. Light, heat or moisture can accelerate this process.

An antioxidant is any substance or element that is capable of delaying or preventing the development of rancidity or the deterioration of fats due to oxidation.

At BTSA we have developed a complete range of antioxidant systems based on tocopherols to protect fats and oils from oxidation and extend their shelf life.

Antioxidant Systems

Main Antioxidant Applications

Fats & Oils
Livestock Feed
Pet Food
Meat Flours
Fish Flours
Pigments
Liposoluble Vitamins

Organic protection for animal health

Oxabiol® Organic is the first 100% organic tocopherol-based antioxidant on the market. It is an exceptional product for preserving animal feed products, increasing their shelf life 100% organically.

- 100% Natural Antioxidant
- Protects food against oxidative rancidity
- Ensures a longer shelf life for pet food
- Has no effect on the final product's color or smell

How does Oxabiol® Organic work?

The high antioxidant power of Oxabiol® Organic is the result of its mixed tocopherol composition. Oxabiol® Organic is a natural antioxidant that protects fats and oils in animal feed products against oxidative rancidity by blocking free radicals, specially designed for organic and ecological products.

Why Oxabiol® Organic?

- European Origin
- No Organoleptic Effects
- Contributes to Sustainability Objectives

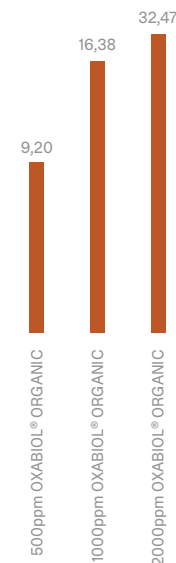
OXABIOL® ORGANIC is the first tocopherol based antioxidant certified organic under the EU Regulation 834/2007 and the National Organic Program (NOP) of the United States Department of Agriculture (USDA).

The **NOP** distinguishes three categories of products:

1. Organic
2. Made with Organic
3. Specific Organic Ingredients



Sunflower Oil at 120°C
Oxidative Stability %



Tailor-made solutions for animal nutrition

Oxabiol® Blends is the range of natural and semi-natural antioxidants that combines Tocopherols with different natural and/or synthetic ingredients, seeking a synergistic effect that increases the antioxidant capacity of the product.

- Natural and semi-natural antioxidants
- Tailor-made products for each application
- Protects fatty components against oxidation
- Guarantees a longer shelf life of the product
- Does not alter the palatability of the product

Solve your oxidation problems with Oxabiol® Blends!

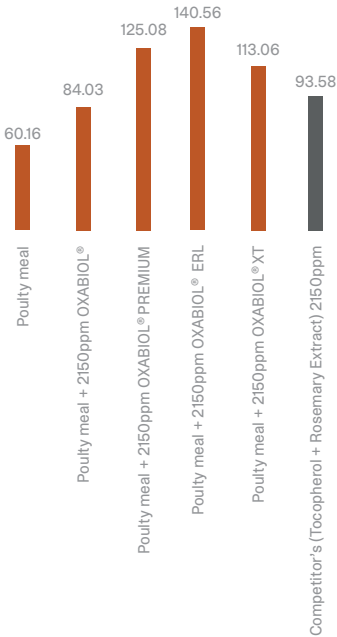
BTSA develops customized and tailored synergistic blends of antioxidants, according to the needs of each client. We have product references with Green Tea Extract, Rosemary Extract, Ascorbyl Palmitate or Lecithin. Our experienced team of professionals will advise you to develop the best antioxidant for your product.

Why Oxabiol® Blends?

BTSA develops customized antioxidants and tailor-made blends for each type of food application, according to the specific needs of each client.

Blends are available with Lecithin, Rosemary Extract, Green Tea Extract, etc.

Test Rapidoxy
Pressure: 700kpa
Temperature: 140°C
Pressure drop: 10%
Minutes Rapidoxy



Test Rancimat
Flow: 20l/h
Temperature: 80°C
Rancimat Hours



Product	Tocopherols	Green Tea Extract	Rosemary Extrat	Lecithin
OXABIOL® XT	•	•		
OXABIOL® ER	•		•	
OXABIOL® ERL	•		•	•

100% natural effectiveness

Oxabiol® T is a natural antioxidant made from tocopherols from vegetable oil and is an excellent product for protecting lipid compounds, increasing the shelf life of the product and thus preserving its freshness and active ingredients.

- 100% Natural Antioxidant
- No dosage restrictions in most applications
- Effective at low concentrations
- Does not alter the palatability of the product

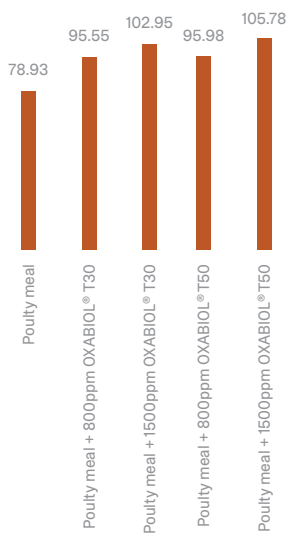
A How does Oxabiol® T work?

The high antioxidant power of Oxabiol® is the result of the synergy between its active ingredients, which are found naturally in the product. Oxabiol® confers stability to fats, oils and meat or fish flours, as well as to other compounds that incorporate pigments, vitamins and/or fatty compounds susceptible to oxidative degradation, ensuring increased shelf life of the products.

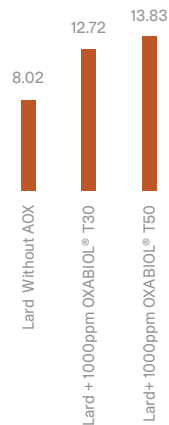
Why Oxabiol® T?

Oxabiol® T is a 100% natural and non-GMO product, available in different concentrations and formats (liquid or powder). It is a unique product on the market, developed exclusively by BTSA.

Test Rapidoxy
Pressure: 700kpa
Temperature: 140°C
Pressure drop: 10%
Minutes Rapidoxy



Test Rancimat
Flow: 20l/h
Temperature: 120°
Rancimat Hours



Active Ingredients



BTSA has been a leading supplier of high quality natural active ingredients for the animal nutrition industry since 1994, making us the ideal partner for the enrichment and fortification of products.

We specialize in the manufacture of natural vitamin E derived from non-genetically modified vegetable oil (Non-GMO), offering a superior alternative to synthetic vitamin E thanks to its double bioavailability.

Active Ingredients

Main Active Ingredients Applications

Feeds
Pet Food
Vitamin Premixes
Nutritional Supplements

High bioavailability, better nutrition

Natural Vitamin E (d-alpha Tocopherol) from non-GMO vegetable oil is an essential component in animal nutrition thanks to its recognized benefits. With over 30 years of experience developing natural ingredients, BTSA is one of the main European producers of Natural Vitamin E for animal feed.

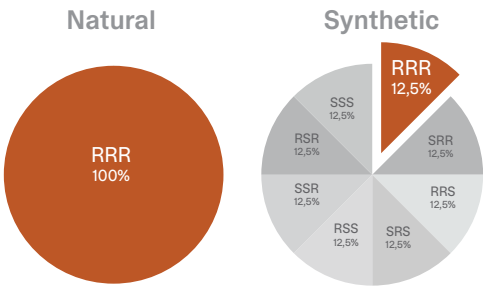
- Greater biological activity than synthetic Vitamin E
- Protects cell membranes
- Prevents oxidative stress
- Intervenes in the development of vital functions
- Contributes to the optimal functioning of the circulatory system
- Strengthens the immune system

Natural Vitamin E (d-alpha tocopherol) is the best alternative to synthetic Vitamin E due to its higher bio-availability and healthier-for-you marketing opportunities: “NATURAL VITAMIN E”

Natural vs Synthetic

Natural Vitamin E is a single stereoisomer (called “RRR”) while synthetic Vitamin E is a mixture of 8 different stereoisomers, where only one of them is the same as the natural one.

After the absorption of Vitamin E, the transport protein α -TTP, which is present in the liver, prioritizes the recognition of the natural form over synthetic. Due to this, natural Vitamin E is retained better and for a longer time in the body than synthetic Vitamin E.



Why Oxabiol® E?

Oxabiol® E is BTSA’s Natural Vitamin E (d-alpha tocopherol), which is available in different concentrations, from 340 to 1300 International Units.

Natural Vitamin E (d-alpha Tocopherol) has greater biological activity than synthetic Vitamin E (dl-alpha Tocopherol). This is because there is greater absorption and therefore retention of its natural form in the body. According to the Food and Nutrition Board, NRC (2000), 1 mg of synthetic Vitamin E (dl-alpha Tocopherol acetate) has a maximum of 50% of active substance compared to its natural form.

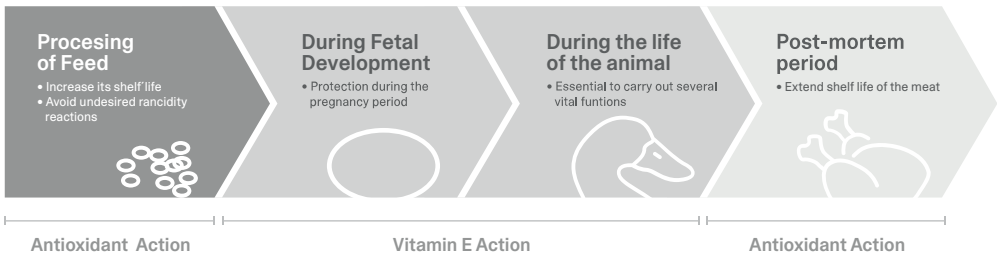
Vitamin E Bio
Availability IU
1mg α -Tocopherol Acetate



Vitamin E Benefits

Poultry	Ruminants	Swine	Aquaculture	Horses	Pets
<ul style="list-style-type: none">• Better zootechnical yields• Higher sperm count	<ul style="list-style-type: none">• Improve reproductive capacity• Lower metritis and mastitis• Lower rate retention placenta• Better immune status in calves	<ul style="list-style-type: none">• Increase litter size• Decrease MMA syndrome• Improve carcass and meat quality, shelf life and color stability	<ul style="list-style-type: none">• Increase oxidative stability in fish meat• Protect lipids from peroxidation	<ul style="list-style-type: none">• Improve oxidative and inflammatory response• Improved functional outcomes in response to exercise test	<ul style="list-style-type: none">• Dogs: Vit E deficiency leads to reproductive failures• Cats: Vit E deficiency causes loss of appetite

Oxabiol® & Oxabiol® E: Essential in all stages of the animal’s life





Quality Commitment

BTSA's commitment to the highest quality standards is supported by the most trusted international certificate bodies.



CARAFE

10 kg



DRUM

190 kg



IBC

950 kg



BAG

15 kg

20 kg

Packaging

PRODUCT	COMPANY
USDA Organic	B-Corp
EU Organic	Ecovadis
Non-GMO Project	ISO 9001
Halal	ISO 22000
RSPO	FSSC 22000

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