



3A

BIOTECH

The shield for tomorrow's well-being

**GENERAL
CATALOGUE**

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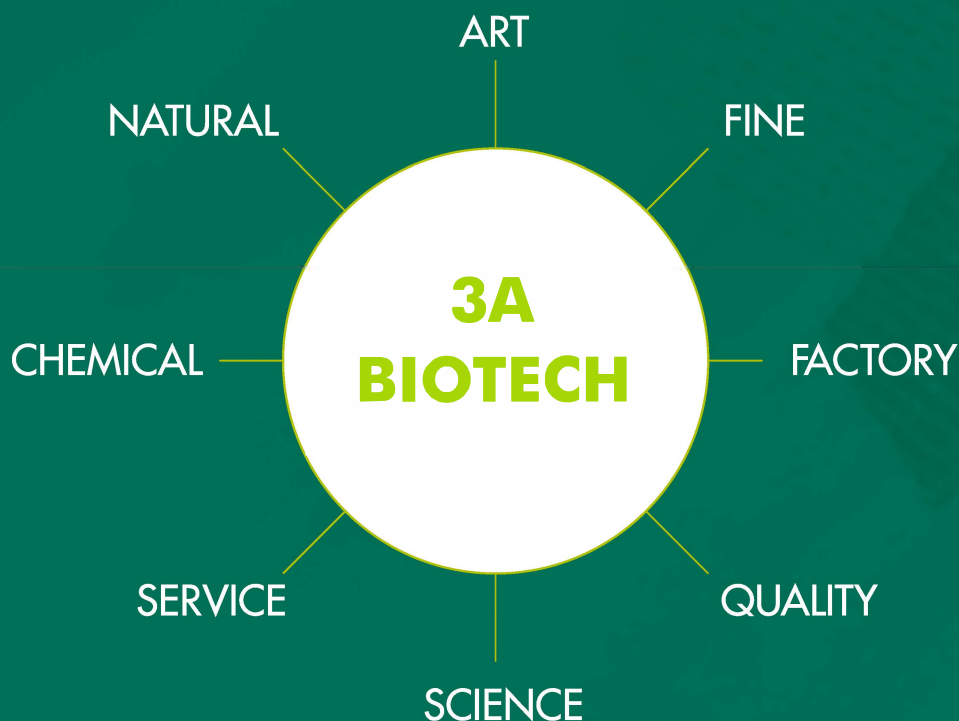


3A BIOTECH

At 3A Biotech we are specialists in the design and manufacture of antioxidants and preservatives, both natural and synthetic, with their subsequent placing on the market and distribution in both liquid and powder. The relationship **3A BIOTECH** has with its clients is based on communication: listening and attending to their needs, as well as knowing their processes to offer a solution adjusted to your requirements.

Our goal is to achieve the trust of clients, imparting our **EXPERIENCE** in various sectors, offering **INNOVATION** and solutions through our **R & D & I** department and, under the certifications we possess, we guarantee the maximum **QUALITY** of our products.

3A BIOTECH was established in 2007 to give service to clients that requested a specific formulation for animal feed. That was just the beginning of a great adventure and a project carried out with a lot of excitement. Today, we combine the design and manufacture of products specific to several sectors, maintaining a close relationship with our clients with the purpose of ensuring a service of quality advice and meeting your requirements. At 3A the team of technicians continues to grow every day. We are also continually expanding our facilities, the result of a job well done and our commitment to continuous improvement products specific to several sectors, maintaining a close relationship with our clients with the purpose of ensuring a service of quality advice and meeting your requirements. At 3A the team of technicians continues to grow every day. We are also continually expanding our facilities, the result of a job well done and our commitment to continuous improvements.



MAIN SECTORS OF 3A BIOTECH



FOOD



FEED



FUEL



COSMETIC
& CARE



3A

BIOTECH



ANTIOXIDANTS BASED ON NATURAL EXTRACTS

DESCRIPTION

Developed and manufactured mainly to preserve color and prevent early rancidity. For application in fresh, cooked and cured meat preparations, as an alternative or supplement to synthetic antioxidants.

Our formulations, based on natural extracts, also offer clearer, more natural and allergen-free labelling.

Maintaining desirable organoleptic properties of color and flavor throughout the lifetime is essential and at 3A we work to be able to do so naturally.

OUR PRODUCTS

Tanirol-AC: Natural formulation based on Acerola cherry extract, designed to protect color in fresh meat products. The principal character acts mainly by stabilising the myoglobin.

Tanirox-7 Dry: Antioxidant based on natural pomegranate extract developed to prevent the appearance of early rancidity. Its principal character manages to prevent oxidation.

Natox Dry: Synergistic blend of natural extract of rosemary and extract rich in tocopherols that allows the maintenance of the organoleptic properties of color and taste and mainly prevent rancidity.

Tocotyrosol range:

Antioxidants that combine the benefits derived from **TOCOPHEROLS** from oilseeds, and **HYDROXYTYROSOL** and other derivatives from **Olive**, with the synergies generated by various potent plant extracts, such as **ROSEMARY** and **GREEN TEA**.

Antioxydants à base de Romarin:

Alternatives in liquid and powder form based on extract or oleoresins of rosemary. It maintains the organoleptic properties of color and taste.

CERTIFICATES

All the raw materials used by 3A BIOTECH in the manufacture of its products are **GMO-free** and do not contain any allergen in their composition. 3A is certified in IFS, ISO 22000. Our products are also Halal and Kosher.



NATURAL PRESERVATIVES

DESCRIPTION

Developed and manufactured to extend the freshness of food by the control of microbiological growth. For application in fresh meat, cooked and cured preparations, cooked as an alternative or supplement to synthetic preservatives.

Our natural formulations allow for cleaner, more natural and allergen-free labelling.

At the microbiological level, they inhibit or delay the development of pathogens and nonpathogens (LISTERIA, SALMONELLA, E. COLI, CLOSTRIDIUM, molds and lactobacillus, among others), increasing food safety and allowing extended shelf life of meat products.

OUR PRODUCTS

Arvin-20: Based on vinegar and for application in fresh, cooked and cured. Principle character is antibacterial.

Biosin-E: Antifungal treatment for casings in cured sausage. Based on essential oils.

Biosin-I: Natural antifungal designed as an alternative to sorbates and benzoates in meat mixtures such as those used in croquettes and other preparations.

Biored: Marked antibacterial character and based on vinegar and Acerola cherry. Applied mainly in beef and mixed meat products. Combines a preservative and antioxidant action.

Fermented dextrose: New formulation for use in meat products with multiple applications. It has a great capacity to inhibit microbial growth. **Bioprotec DF and Lacet range.**

CERTIFICATES

All ingredients in the Natural Preservatives range come from plant sources, and are suitable for clean labeling.





ANTIOXIDANTS FOR HIGH TEMPERATURE PROCESSES

DESCRIPTION

Vegetable fats and oils that are subjected to frying and baking processes require effective protection against temperature. Not all antioxidants are equally effective in thermal processes, as the antioxidant itself can quickly oxidise thus losing its effectiveness. If the antioxidant is not adequate, the oil will be unprotected and will begin the oxidation that will cause the food to deteriorate by modifying its organoleptic properties and causing consumer rejection.

3A offers a range of products suitable for each process, taking into account factors such as temperature, the time of exposure to the temperature and the presence of water, all of which is focused on preserving or extending the shelf life of the products. The use of an antioxidant in frying oils allows the frying cycles to be extended, thus obtaining an additional economic benefit. We also offer antifoamers to complete the range of frying products.

OUR PRODUCTS

Fritox is our best-selling antioxidant for frying. It is a liquid formulation based on TBHQ and recommended for high temperature processes (>200 °C).

Palmitox PG65 is a seminatural formulation especially for frying oils. It contains three different active substances that can curb the different types of oxidation that occur during the frying process: polymerisation, free radical formation and hydrolysis.

Taniox-7 is rich in polyphenols and it is our natural alternative and allows clean labeling for baked products such as cookies, snacks, etc or for continuous frying.

CERTIFICATES

All the raw materials used by 3A BIOTECH in the manufacture of its products are **GMO-FREE** and do not contain any allergen in their composition.



NATURAL ANTIOXIDANTS WITH ROSEMARY

DESCRIPTION

There are certain ingredients such as aromas, spices and seasonings, which when exposed to light suffer photochemical oxidation that affects color and smell. The use of these ingredients in formulations gives foods certain organoleptic properties (smell, taste, colour). The change in these properties can lead to consumer rejection, hence the importance of using quality ingredients and properly stabilising them.

Our antioxidants based on rosemary, The cultivation of which is under our control in southeastern Spain, maximise the active molecules of rosemary extract: carnosic acid and rosmarinic acid. Rosemary extract is very effective against photochemical and lipid oxidation and allows organoleptic properties to be maintained throughout the shelf life of food.

OUR PRODUCTS

Natox range: Mélange synergique d'extrait riche en tocophérols et d'extrait de romarin dans différentes proportions, sous forme de liquide et poudre. Son utilisation est recommandée sur les produits affinés, les épices, etc.

Oxirom range: Natural extract of liquid rosemary. Some forms are presented in combination with other antioxidants such as citric acid. It is recommended to be used for butters, lards, oils and other fats.

Tainox range: Rosemary extract powder for a wide variety of applications. We have different purity percentages of carnosic acid and rosmarinic acid available.

CERTIFICATES

All the raw materials used by 3A BIOTECH in the manufacture of its products are **GMO free** and do not contain any allergen in their composition. 3A BIOTECH is certified in **IFS, ISO 22000**. Our products are also Halal and Kosher.



ANTIOXIDANTS FOR FRUIT AND VEGETABLES

DESCRIPTION

Our antioxidants for fruit and vegetables have been formulated mainly to protect the original color of fresh fruit, avoiding or delaying the oxidation processes that occurs by the action of fruit enzymes such as polyphenol-oxidase.

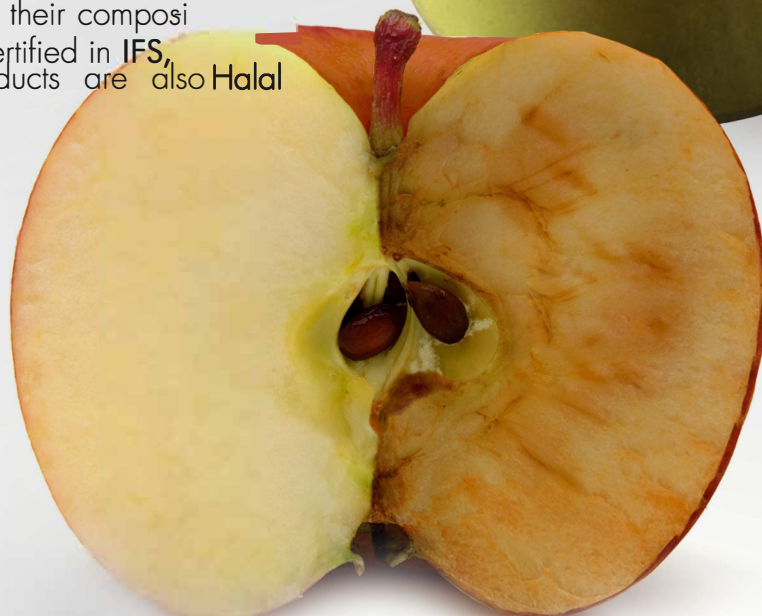
We offer a range of natural antioxidants, suitable for clean labels and formulated with natural extracts. They act effectively against photochemical oxidation, which occurs by the effect of exposure to light and, against the enzymatic browning that occurs in some fruits and vegetables.

OXIFRUIT / OXIFRESH / OXIGREEN

This range of natural antioxidants is offered in powder form and is designed for implementation in Fourth Range and in manufacturing processes. Our products have been validated for apple, pear, avocado, chard, carrot, aubergine, etc. In addition to its use for cut fruit and vegetables, it is also possible to apply it in sauces such as guacamole, fruit purees, etc. For other applications, please consult directly with our technical-commercial team.

CERTIFICATES

All the raw materials used by 3A BIOTECH in the manufacture of its products are **GMO-FREE** and do not contain any allergen in their composition. 3A BIOTECH is certified in **IFS**, **ISO 22000** Our products are also **Halal** and **Kosher**.



NATURAL ANTIOXIDANTS IN ANIMAL FEED

DESCRIPTION

Nowadays, the trend of the final consumer, and therefore of pet-food manufacturers, is to have a more natural and environmentally friendly product available. Therefore, there is a high demand for natural antioxidants to ensure the stability of feed, as well as of raw materials (meals, fats and premixtures).

3A BIOTECH has extensive experience in stabilisation with natural antioxidants. We have both powder and liquid form. Our synergistic mixtures are formulated with tocopherol, natural extract of rosemary and other extracts which we consider to have great antioxidant potential due to the high content in tannins, such as tea, pomegranate or grapes.

In addition, our formulations are also available with natural carriers. Using a natural carrier has a positive impact on animal health, as well as reducing employee risks during product handling.

OUR PRODUCTS

In 3A we have different ranges of antioxidants depending on their component natural extracts:

Natox: Synergistic mixture of tocopherol and rosemary.

Naturnox: Different percentages of natural extract rich in tocopherols.

Nattea: Rich in pomegranate and polyphenols from green tea extract.

Tanicit: Innovative blend of other natural extracts.

Tocotyrosol range:

Antioxidants that combine the benefits derived from **TOCOPHEROLS** from oilseeds and **HYDROXYTYROSOL** and other derivatives from **Olive**, with the synergies generated by various potent plant extracts, such as **ROSEMARY** and **GREEN TEA**.

FEED GRADE



SYNTHETIC ANTIOXIDANTS FOR FLOURS, FATS AND FEED STUFFS

DESCRIPTION

All animal by-products intended for the production of fats, oils and meat and fish meal have an important nutritional value that makes them a high value raw material for the feed and pet food manufacturing industry. However, these by-products are highly sensitive to oxidation, they become rancid very easily, and this directly affects taste and nutritional quality.

In addition, oxidation causes the loss of vitamins and nutrients. Poor palatability in feed stuffs for dogs and cats makes them reject food. Even if ingested, an oxidised product can cause vomiting, diarrhoea and even affect the animal's immune system.

All this makes the protection of fats and flours very important. The main catalysts of oxidation are: temperature, metal ions and light. The first chemical compounds formed when the byproduct is oxidised are peroxides and then other volatile compounds such as aldehydes, ketones, acids etc, which result in this rancid odor characteristic of the oxidised product.

The solution to prevent oxidation is the use of antioxidants that slow this deterioration and extend the shelf life of the product. For the correct use and application of antioxidants it is necessary to ensure a good dissolution and homogenisation of antioxidants.

Since small concentrations of antioxidant are required for the protection of fats and flours, the method of incorporation of antioxidants determines the success in stabilisation of the raw material. The 3A team makes recommendations on a case by case basis following an onsite visit, an antioxidant solution is sprayed directly on the product through the augers at different points of the process (in raw, flour and fat).

OUR PRODUCTS

	BHA	BHT	PROPYL GALLATE	CITRIC ACID
ABUTOX	●	●		
ANITOX	●		●	●
BEBUTOX		●		

We offer our products in both liquid and powder form. We serve our clients by visiting the plant to advise on the best form of application



TRADE SHEET **ANTI-SALMONELLA DISINFECTANTS** **FOR MEAT AND FISH MEAL,** **FEED AND BY-PRODUCT**

DESCRIPTION

Meat and fish meal obtained from the digestion of animal by-products from slaughterhouses, butchers and cutting plants are often rapidly contaminated by micro-organisms such as Salmonella, E. Coli, Clostridium and Enterobacteria.

3A has a range of preservatives and hygienisers for the treatment of meal and feed, fully effective against these pathogens, as well as a technical service that reviews the facilities to detect the critical points for improvement. We have also developed a specific product for the treatment of raw by-products.

OUR PRODUCTS

ECONOX range: Disinfectants/Preservatives for supply feed, pet food, meat meal, fish meal, etc. We offer different formulas based on organic acids and their salts, some of them rich in bioflavonoids that help avoid intestinal salmonellosis, others, progressively release to improve their performance over long periods and a special formulation with essential oils to improve the intestinal flora of animals. Available in both liquid and powder form.

Quick Frenacid: Inorganic formulation designed for microbial control of animal byproducts during movement from the slaughterhouse to the rendering plant. This makes it possible to improve the quality of meat and fish meal and reduce the acidity of fats.

DOSING EQUIPMENT

3A-BIOTECH has a technical advisory service. We travel to the premises of our clients to discuss possible options for improvement. We also offer automatic dosing equipment for the correct dosage of preservatives





3A BIOTECH

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