

NATURAL PRESERVATIVES FOR FISH

Fish is a great source of protein and fatty acids essential for a balanced and healthy diet. However, its freshness and quality are susceptible to degradation due to various factors, which represents a challenge for the food industry.

These challenges include pathogens such as listeria and micro-organisms that can proliferate under optimal conditions and compromise food safety, as well as micro-organisms that affect the organoleptics of the product.

In the following, we will look at the commercial problems associated with fish, the most common pathogens in fish and the solutions offered by the market in the form of natural preservatives.

What are the most common commercial shelf-life problems in fish?

Among the most common commercial shelf-life problems in fish we can find: the generation of exudates due to bacterial heterofermentations, loss of texture or [syneresis and gas generation](#).

This is due to the fact that fresh fish is highly perishable. Due to its biological composition, it must be kept under good storage conditions throughout its shelf life, which are not always met.

This rapid deterioration of fish can be due to factors such as exposure to air, inadequate temperature, cross-contamination and above all microbial activity. This not only affects the sensory quality of the fish, but also represents a health risk for the consumer and can result in significant economic losses for producers and retailers.

What pathogens usually affect fish?

Among the most common pathogenic micro-organisms affecting fish are bacteria such as *Salmonella*, [Listeria monocytogenes](#) and *Vibrio spp.* as well as parasites such as *Anisakis*, which is probably more recognised by consumers. In sectors such as meat, pathogens such as *Listeria* or *Salmonella* are well recognised and feared, however they are not so well known by fish consumers.

These organisms can cause [foodborne illness](#) if fish is not handled, stored and cooked properly. The presence of these pathogens is a serious problem that requires effective solutions to ensure food safety and product quality.

What preservatives are now available on the market?

There are currently a number of preservatives and additives on the market that seek to address these challenges, but they have their limitations. Some of the most commonly used options include:

1. **Rosemary Extract:** This natural preservative is rich in antioxidants to prolong the freshness of fish.

2. **Ascorbic Acid (Vitamin C):** In addition to its antioxidant properties, ascorbic acid can help prevent lipid oxidation and maintain the sensory quality of fish.
3. **Essential Oils:** Some essential oils, such as oregano and thyme, have been shown to have antimicrobial activity and can be used as natural preservatives in fish products.
4. **Sodium Nitrate:** Although a widely used preservative, sodium nitrate can also be obtained from natural sources such as sea salt, providing a more natural option for fish preservation.

However, at Amerex we have natural preservatives that will not only protect the food from pathogens as important as listeria, but will also help to reduce chemical additives such as the aforementioned nitrate, and improve the organoleptic properties of the product.

What challenges do Amerex fish preservatives face?

At Amerex we have natural fish preservatives that meet the main challenges of the market. Thanks to Amerex natural preservatives you can:

- Extend shelf life by controlling heterofermentative lactobacilli in fresh and frozen fish preparations.
- Prevent pathogens such as listeria.
- Generate colour by removing nitrites.
- Decrease the incidence of histamine.
- Avoid unwanted acidification and syneresis, while maintaining texture.

Amerex preservatives can be applied in different ways depending on the type of fish processing:

- In batter: for fish patties or surimi.
- Injected: for emperor, tuna, salmon, swordfish, etc.
- On the surface: for any type of smoked or marinated fish (sushi). On prawns or cephalopods.

The fish industry faces significant challenges in terms of preserving freshness and food safety. However, by harnessing the benefits of natural ingredients and biotechnology, we can ensure that fish reaches consumers safely. Do not hesitate to contact us for more information!

- You can write us an email to: imasd@amerexingredientes.com
- Call us on: +34 91 845 42 14
- Fill in the form below

See you neXt time!