Sauces, dressings and condiments

CORBION PURAC RELISHES SOLVING YOUR CHALLENGES
Sauces, dressings and condiments are long-standing, diverse markets that are growing. At the same time, new convenience products, like cooking sauces for pasta and rice, are becoming increasingly fashionable. Today’s consumers expect their sauces, dressings and condiments to be tasty, offer long shelf life, and also to be healthy, free of artificial additives and to contain less sodium and fat. Currently, the vast majority of these products are acidified to preserve both flavor and shelf life. With over 80 years of experience in producing natural L-lactic acid, Corbion Purac has become an expert in the use of acidulants in a wide variety of acidified foods. For decades, Corbion Purac has been providing effective solutions for traditional and newer sectors of this market and offers a wide a range of solutions that can help optimize your products and offer new added-value.

Looking to stay on top of challenges in sauces, dressings and condiments?

Regulating pH
Acidification, or pH-regulation, is a technique commonly used in the industry to preserve the flavor, as well as the shelf life of a product. Choosing the right acid, or combination of acids, to give an appropriate pH for preservation and yet deliver great flavor is a balancing act (see figure 1).

Flavor profile comparison of organic acids

Sour, but not too sour?
Vinegar (acetic acid) is most commonly used in the sector, but it can have an overbearing flavor and so is often combined with other acids to achieve the desired flavor. Lactic acid has long-lasting taste and a unique, and highly desirable, mild character that offsets the intense flavor of stronger acids. Furthermore, it is proven to complement other flavor notes, such as tomato, herbs and cheese. Our PURAC® portfolio includes a range of products varying from natural L-lactic acid in different concentrations, to buffered-blends with other organic acids.

Shelf life
Sauces, dressings and condiments, are normally sold shelf-stable. To preserve these products, the manufacturer maintains a low pH that prevents the growth of common spoilage microorganisms and pathogens.

However, spoilage organisms, such as bacteria (e.g. Lactobacillus spp.) yeast and molds (e.g. Mucor spp. and Saccharomyces spp.) are naturally abundant. Certain bacteria can thrive under extreme circumstances, such as low water activity, low pH and without oxygen, causing blown up packages, alteration of taste, or visual spoilage. The pH-hurdle is not a guarantee, but can be enhanced further with additional ingredients or hygiene.

PURAC natural L-lactic acid and PURASAL®, our sodium or potassium lactates, have demonstrated a high efficacy against bacteria that are less affected by many other acids.
**Food minus trend**

An increasing number of consumers and authorities want to reduce the levels of unhealthy components in their diet because of health risks associated with excess consumption. This trend poses a huge challenge to an industry that promotes taste.

The high fat content of sauces and dressings is a good barrier against the growth of microorganisms. Reducing the fat content to make the product healthier increases the available moisture. For the same anti-microbial activity more acids are needed. Blending e.g. additional vinegar with lactic acid offers the same antimicrobial activity and a milder flavor profile (see figure 2).

In sodium reduced products, shelf life can be maintained with PURASAL® HiPure P Plus, which is potassium lactate with a neutral taste. Furthermore, Corbion Purac introduced a new range of PuraQ® Arome solutions based on ferments that can be labeled natural flavor. These work as multifunctional building blocks to restore savory taste profile, texture and shelf life.

As with reducing sodium intake, there is a global trend in reducing the use of certain preservatives, such as benzoates (E211) and sorbates (E201, E202 and E203), following concerns about their effects on health. Consumers demand labels with ingredients they recognize and understand.

Corbion Purac has over 80 years of experience in the development, manufacturing of naturally-derived solutions and is therefore well equipped to meet this challenge. Our global presence puts us right by your side, wherever you are in the world, to provide technical expertise, service and unique propositions that can perfect your products and help save on your own R&D.

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**Our solutions for sauces, dressings and condiments**
- Extend shelf life
- Acidify products
- Enhance flavor
- Reduce sodium
- Enable consumer-friendly labeling

**Industry trends**
- Free of artificial preservatives
- Consumer-friendly labeling
- Increased level of convenience

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**Growth of Lactobacillus plantarum in dressing with different moisture contents**

![Figure 2](image)

**Area of interest** | **Benefit** | **Solution**
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**Acidification** | Shelf life control | PURAC®, PURASAL®
**Sodium reduction** | Savory flavor building blocks | PuraQ® Arome
| Shelf life control | PURASAL® HiPure P Plus
**Taste** | Mild acid profile | PURAC®
| Savory flavor optimisation | PuraQ® Arome

*Check with your local sales representative for the availability in your region and to determine the best fit with your product.*
Corbion in Food

With over 80 years of fermentation expertise and the use of natural raw materials to produce exceptional food and beverage ingredients, Corbion Purac has a wealth of expertise in the world of biobased food ingredients. Our extensive portfolio combined with leading expertise, application knowledge and technical service make us your food industry partner, helping solve food integrity issues by providing improvements in shelf life, freshness and food safety.

About Corbion

Corbion is the global market leader in lactic acid, lactic acid derivatives and lactides, and a leading company in functional blends containing enzymes, emulsifiers, minerals and vitamins. The company delivers high performance biobased products made from renewable resources and applied in global markets such as bakery, meat, pharmaceuticals and medical devices, home and personal care, packaging, automotive, coatings and coating resins. Its products have a differentiating functionality in all kinds of consumer products worldwide. In 2012, Corbion generated annual sales of €753 million and had a workforce of 1,800 employees. Corbion is listed on NYSE Euronext Amsterdam.

For more information: www.corbion.com