Product Range

Bio-based ingredients

Jungbunzlauer

About Jungbunzlauer

Jungbunzlauer is a leading producer of high-quality, sustainable ingredients from natural sources.

Founded in 1867 and headquartered in Basel, Switzerland, Jungbunzlauer is the trusted partner for naturally derived, biodegradable ingredients. Backed by more than 150 years of fermentation expertise, our portfolio of acidulants, sweeteners, texturants, minerals and tailored solutions helps customers in food and beverage, nutrition, health, home and personal care, pharmaceuticals, and cleaners and detergents create healthier, safer, tastier and more sustainable products.

Produced from renewable raw materials through large-scale fermentation and advanced downstream technologies, every ingredient can be used, transported and disposed of in an ecologically safe way.

State-of-the-art plants in Austria, Canada, France and Germany anchor our manufacturing footprint, while a worldwide network of sales companies and distributors empowers us to serve more than 130 countries with deep market insight and responsive service.

Guided by rigorous quality management and an ambitious sustainability vision, our Technical Support, Market and Application Development teams collaborate with customers to solve commercial and technical challenges, delivering tailor-made solutions backed by up-to-date know-how.

Products

Building on 150 years of fermentation expertise, Jungbunzlauer is your trusted partner for naturally derived, biodegradable ingredients and tailored solutions, serving a broad array of industries worldwide.

Jungbunzlauer’s added value products are manufactured to the highest quality standards and are available in different grades with a wide variety of specifications and performances.

Acidulants

CITRICS

- Citric Acid Anhydrous
- Citric Acid Monohydrate
- LIQUINAT® (Citric Acid solution)
- Trisodium Citrate Anhydrous
- Trisodium Citrate Dihydrate
- Monosodium Citrate
- Tripotassium Citrate

GLUCONATES

- Gluconic Acid
- Glucono-delta-Lactone
- Sodium Gluconate
- Sodium Gluconate EMF 1240
- NAGLUSOL®

LACTICS

- L(+)-Lactic Acid
- L(+)-Lactic Acid Buffered
- Potassium L(+)-Lactate
- Potassium L(+)-Lactate Blends
- Sodium L(+)-Lactate
- Sodium L(+)-Lactate Blends

Texturants

- Xanthan Gum
- TayaGel® HA
- TayaGel® LA
- TayaGel® Modus

Minerals & Solutions

MINERAL SALTS

- Tricalcium Citrate
- Calcium Lactate Gluconate
- Trimagnesium Citrate
- Monomagnesium Citrate
- Magnesium Lactate
- Magnesium Bisglycinate
- Potassium Gluconate
- Zinc Citrate
- Zinc Gluconate
- Zinc Lactate

CITRATE ESTERS

- CITROFOL® AI
- CITROFOL® BI
- CITROFOL® BII

COATED ACIDS

- Citric Acid DC
- Citric Acid S40
- CITROCOAT® N
- CITROCOAT® EP

APIS

- Citric Acid
- Tripotassium Citrate
- Trimagnesium Citrate
- Trisodium Citrate

Sweeteners

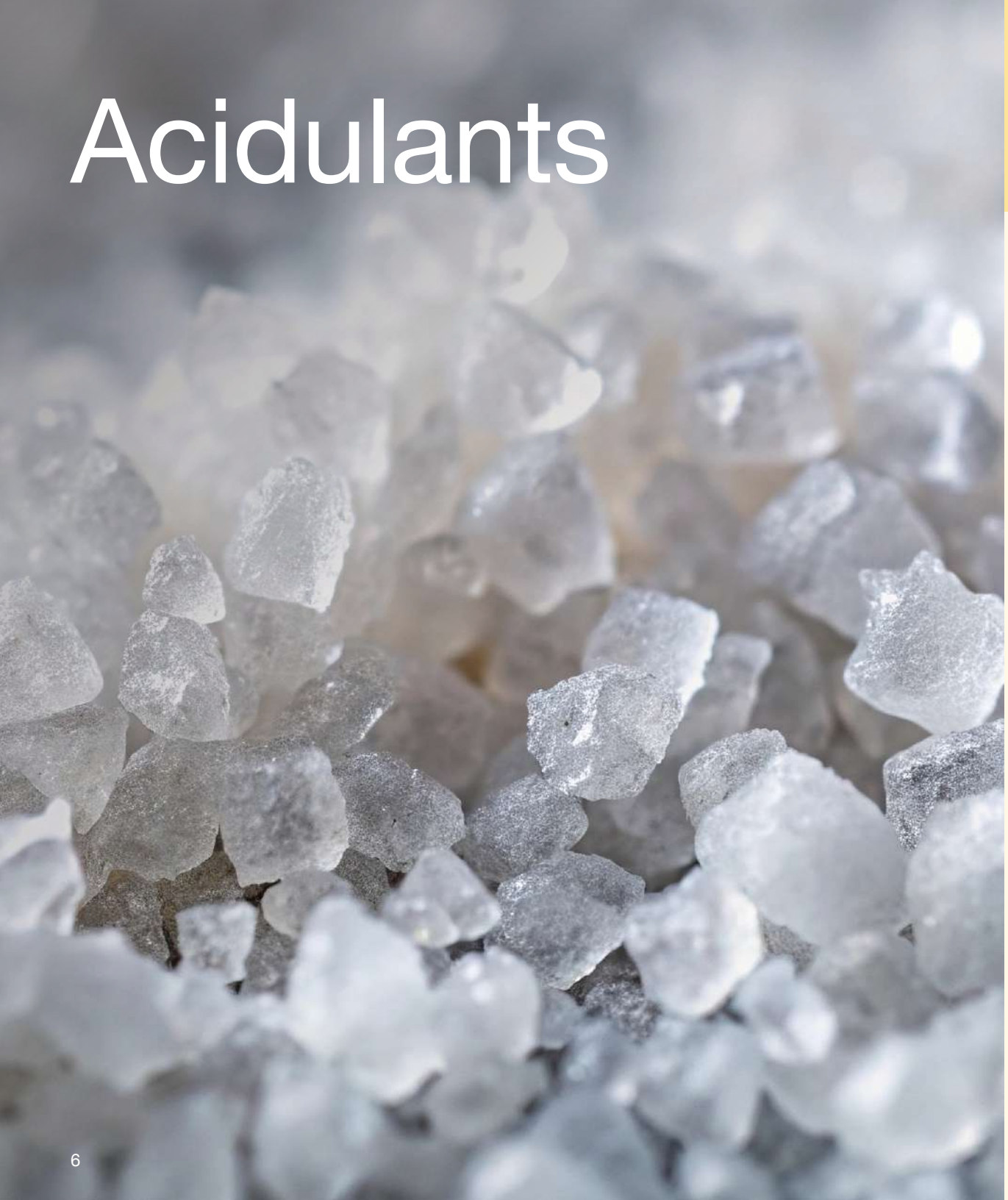
ERYTHRITOL

- ERYLITE®
- ERYLITE® Bronze
- ERYLITE® Stevia

GLUCOSE

- GlucoDex® D96

Acidulants



Citrics

Citrics constitute the largest product group in Jungbunzlauer's portfolio. This group comprises citric acid - the most important organic fruit acid - as well as sodium citrate (tri and monosodium citrate), and tripotassium citrate, the most widely used salts of citric acid.

Citric acid is marketed in both dry form and solution under the trade name LIQUINAT®. Both citric acid and the citrates are readily biodegradable and safe for industry and consumers alike, properties that underscore their value as food and pharmaceutical ingredients. Further citrate salts are covered by Jungbunzlauer's Minerals & Solutions category.

Citric Acid (Anhydrous and Monohydrate)

Crystalline citric acid from Jungbunzlauer is commercially available in two forms: citric acid anhydrous and citric acid monohydrate.

Citric acid is a naturally occurring fruit acid produced commercially by microbial fermentation of a carbohydrate substrate. Characterised by a pleasant tart taste and easy solubility, it is the most widely used organic acid and pH-control agent in foods and beverages. Its excellent ability to form complexes with trace metals makes it a powerful antioxidant synergist. It stabilises colour, taste, flavour and vitamins in various food applications.

The unique properties of citric acid can also be applied over a broad range of industrial applications. Many industries have already taken advantage of its outstanding chelating ability.

LIQUINAT®

Jungbunzlauer LIQUINAT® is a liquid solution of citric acid. Due to its advantages in handling, LIQUINAT® is widely used as acid and pH-control agent in foods, beverages and pharmaceuticals.

LIQUINAT® is a clear, practically colourless and odourless solution with a pure, fruit-sour flavour. It is a stable, non-volatile solution and is a useful option for non-volatile water-based solutions.

Trisodium Citrate (Anhydrous and Dihydrate)

This tribasic salt of citric acid is being offered in two forms: trisodium citrate anhydrous and trisodium citrate dihydrate. The dihydrate form of trisodium citrate is commonly used in foods, beverages and various industrial applications as buffering and sequestering agent as well as an emulsifying salt. As builder in automatic dish washing detergents (ADWD) it replaces phosphates and hence substantially contributes to alleviating eutrophication (excessive growth of plants and algae in water bodies).

Its anhydrous form is manufactured from trisodium citrate dihydrate by a patented drying process. Trisodium citrate anhydrous crystals have a porous matrix that can be used as a carrier for inorganic and/or organic substances. It is not prone to caking and can be used in applications where excess water is not desired. Thus, trisodium citrate anhydrous finds its usage in water sensitive applications such as dry blends and instant beverages, detergents as well as in tablets and over-the-counter (OTC) drugs.

Monosodium Citrate

Monosodium citrate is a monobasic salt of citric acid which occupies an intermediate position between citric acid and the complete neutralised trisodium citrate. Therefore, monosodium citrate is used if a buffering effect is required or if citric acid is considered to be too aggressive for the formulation. It is applied as a mild acid in effervescent tablets, dry blends and baking powder. Monosodium citrate can be also used to reduce the acrylamide content in heat treated, starch containing food products. Furthermore, it is also commonly used as non-toxic blowing agent, e.g. to foam food contact plastics.

Tripotassium Citrate

Tripotassium citrate displays a similar functionality to trisodium citrate and is recommended in all food products which require a low sodium content. Being an excellent potassium source and systemic alkaliser, tripotassium citrate is also used in pharmaceuticals as an active ingredient, e.g. for the treatment of kidney stones, as well as in dietary supplements and functional foods to promote acid-base balance. Added to dentifrice, it is clinically proven to reduce pain for people with sensitive teeth. Moreover, it is used in several technical applications.

Gluconates

Jungbunzlauer Gluconates are multifunctional ingredients for food, personal care, pharmaceutical and technical applications.

The product group consists of gluconic acid, glucono-delta-lactone (GdL), sodium gluconate, sodium gluconate EMF 1240, and NAGLUSOL®.

Gluconic Acid

In food applications, gluconic acid does not only regulate the pH of the finished product, but also provides a long-lasting and mild tasting profile that is preferred in beverages, sauces and dressings. Technical grade gluconic acid is used in cleaning products where it dissolves mineral deposits.

Gluconic acid is a mild organic acid, neither caustic nor corrosive and with excellent sequestering power. Non-toxic and readily biodegradable (98% after 2 days), it occurs naturally in plants, fruits and other foodstuffs such as wine (up to 0.25%) and honey (up to 1%). Gluconic acid is prepared by fermentation of glucose, whereby the physiological d-form is produced.

In all recipes where gluconic acid is used together with sodium hydroxide, we recommend the direct use of sodium gluconate, the dry sodium salt of gluconic acid or the special product NAGLUSOL®.

Gluconic acid has versatile properties through being a polyhydroxycarboxylic acid, with both hydroxyl and carboxyl groups which can react.

Concentrated solutions of gluconic acid contain some lactone (GdL), the neutral cyclic ester, which is less soluble in cold conditions and possesses no actual acid properties. About 5% of GdL are present in the 50% gluconic acid solution at room temperature.

Gluconic acid is stable at the boiling point even of concentrated alkaline solutions. However, it is easily and totally degraded in wastewater treatment plants (98% after 2 days).

Glucono-delta-Lactone

Glucono-delta-lactone (GdL), is a neutral cyclic ester of gluconic acid, produced with the acid by fermentation of glucose. It is separated from the acid by crystallisation.

GdL is a fine, white crystalline powder, freely soluble in water. It is practically odourless and has a slightly sweet taste. Non toxic, it is completely metabolised in the body like a carbohydrate.

When added into an aqueous solution, GdL rapidly dissolves, and subsequently slowly hydrolyses to gluconic acid, thus producing gentle acidification in the same way as lactic acid-producing bacteria. In solution both gluconic acid and GdL are always in balance. The equivalent point and the rate of transformation are related to concentration, temperature and pH-value.

Two properties set GdL apart from other common acids and are the base of its application range: First, through its slow hydrolysis to gluconic acid, it ensures a progressive and continuous decrease of pH to equilibrium. Hence, it is used as a slow release acidifier. Secondly, during its hydrolysis, the initial sweet taste of GdL becomes only slightly acidic, making the final flavour of an aqueous solution of GdL much less tart than the one of other acidifiers.

Sodium Gluconate

Sodium gluconate, a white crystalline powder, is the sodium salt of gluconic acid. It is predominately used for technical applications as an effective set retarder and plasticizer in concrete admixtures, as well as a chelating agent for various ions in industrial, institutional and household cleaning products. It is also used for the cleaning of metal surfaces in the metal plating and electronic industry, and as formulations aid in agriculture to enhance micronutrient uptake. In personal care products, sodium gluconate is used as a chelating agent (replacement of EDTA) as well as a powerful moisturising ingredient. In the past years sodium gluconate's use in food applications has become more widespread. It is used to cover bitter flavours of high intensity sweeteners, mineral salts and caffeine in beverages.

Sodium Gluconate EMF 1240

Sodium gluconate EMF 1240 is the mother liquor of sodium gluconate and is used as an appreciated concrete set retarding and plasticising agent for concrete and mortar, since it is non-corrosive, non-toxic and easily biodegradable.

Additionally, it forms stable chelates with various ions, especially in alkaline and concentrated alkaline solutions.

NAGLUSOL®

NAGLUSOL® is a 60% solution of equal parts of gluconic acid and sodium gluconate. Like its components, NAGLUSOL® is an excellent chelating agent, non-corrosive, non-toxic and easily biodegradable. In addition, it combines the advantages of sodium gluconate and gluconic acid without their drawbacks.

Being a blend of sodium gluconate and gluconic acid, the principal property of NAGLUSOL® is its excellent chelating power for calcium, iron, copper, aluminium and other heavy metals, especially in alkaline and concentrated alkaline solutions.

But it has also additional properties that set it apart from its components:

- A high concentration: NAGLUSOL® has a concentration that is 1.6 times high as the concentration of a saturated sodium gluconate solution at room temperature. Thus, it provides less dilution of other additives at incorporation into formulations.
- A low freezing point: Indeed, gluconic acid is known for its tendency to crystallise at temperatures below +10°C. NAGLUSOL® remains stable down to -10°C although its concentration is even higher than that of gluconic acid.

Lactics

Jungbunzlauer's Lactics deliver cross-industry benefits by offering natural, sustainable antibacterial and pH-regulating properties, combined with safe and efficient preservation, making them ideal for applications requiring microbial stability, mild acidification, and high product safety.

L(+)- Lactic Acid

Lactic acid is an organic acid occurring naturally in the human body and in fermented foods. It is used in a wide range of food, beverages, personal care, healthcare, home care, animal nutrition and chemical products as a mild acidity regulator with flavour enhancing and antibacterial properties. The commercial production of lactic acid is typically done by fermentation. Because the L(+) form is preferred for its better metabolisation, Jungbunzlauer has chosen to produce pure L(+)-lactic acid by traditional fermentation of natural carbohydrates.

L(+)-lactic acid is a colourless to yellowish, nearly odourless, syrupy liquid with a mild acid taste. It is commercially available as aqueous solutions of various concentrations. These solutions are stable under normal storage conditions. Lactic acid is readily biodegradable.

L(+)- Lactic Acid Buffered

L(+)-lactic acid buffered is a mild acidity regulator with flavour enhancing and antibacterial properties. It is especially beneficial in confectionery products to reduce sugar inversion in hard candies and gelatine degradation in soft candies.

Jungbunzlauer L(+)-lactic acid buffered is a colourless to yellowish, nearly odourless, syrupy liquid with an acid taste, consisting of a mixture of lactic acid and sodium lactate. This solution is stable under normal storage conditions.

Sodium L(+)- Lactate

Sodium lactate is the sodium salt of L(+)- lactic acid, obtained by neutralisation of the acid of natural origin with a high purity sodium source. It is available as a 60% solution in water. Sodium lactate is a safe preservative for processed meat and fish products. It is also used as a buffering agent in confectionery and, as a result of its high-water holding capacity, as a humectant and moisturiser in personal and home care products.

Potassium L(+)- Lactate

Potassium lactate is a liquid potassium salt of L(+)-lactic acid, obtained by neutralisation of the acid of natural origin with a high purity potassium source. Used as a sodium free pathogen control agent in meat and fish products, it addresses the concerns of health organisations and consumers about reducing sodium intake. As a component of the natural moisturising factor (NMF) of the skin, it also serves as a powerful, yet smooth moisturiser in beauty care.

Lactate Blends (Potassium and Sodium)

Jungbunzlauer offers a variety of blends of sodium or potassium lactate with sodium or potassium acetate or diacetate. Combinations of lactates and acetates create a synergistic effect for pathogen and overall microbial control, thus increasing safety and shelf life of processed meat and fish products without taste compromise.

Texturants

The texturant product group comprises the two unique hydrocolloids: Xanthan Gum and TayaGel®.

Both xanthan gum and TayaGel® are bio-based ingredients produced by fermentation from renewable carbohydrate sources. Their exceptional rheological properties make them ideally suitable as stabilisers and thickeners for food and technical applications.

Xanthan Gum

Xanthan gum exhibits extraordinary and useful properties, for example high viscosity at low concentrations, little change in viscosity at varying temperatures, and excellent stability over a wide pH range. It also provides good freeze-thaw stability and shows remarkable suspension characteristics.

It is used as a stabiliser, thickener, suspending agent and bodying agent in food applications such as salad dressings, sauces, instant products, desserts, bakery dairy products, and fruit juices as well as in the formation of various low-calorie foods. Cosmetic and pharmaceutical applications of xanthan gum include the use in toothpastes, lotions, shampoos and formulations such as tablets. Typical industrial applications of xanthan gum is the use in cleaners, paints, ceramic glazes, inks and oil drilling fluids.

TayaGel® HA (High Acyl Gellan Gum)

TayaGel® HA is a bio-based, naturally occurring gelling, suspending and stabilising agent with extraordinary and useful properties. At very low concentration, it exhibits high stabilising and suspending properties with high pseudoplastic solutions. Full hydration will be obtained by heating to 85°C – 95°C; upon cooling TayaGel® HA solutions will form soft, elastic and flexible gels with remarkable low tendency to syneresis. These gels do not show a thermal hysteresis, i.e. they set and melt at the same temperature between 70°C and 80°C.

TayaGel® HA is used as extremely efficient stabilising and suspending agent, providing a smooth fluid gel structure, even at concentrations between 0.02 – 0.05%. It is mainly used as stabiliser in dairy and dairy alternative beverages, but also for pulp stabilisation in fruit drinks. With its special soft gelling properties at higher concentration, additional applications are in confectionary products, jams or fruit preparations, puddings, pie fillings, icings or frostings, and dairy products such as milk drinks, ice cream and yoghurt. TayaGel® HA D with special emphasis on dairy applications offers the best choice to create excellent stabilised products.

TayaGel® LA (Low Acyl Gellan Gum)

TayaGel® LA, Jungbunzlauer's Low Acyl Gellan Gum, is a bio-based, naturally occurring polysaccharide produced by fermentation. With outstanding gelling and texturising performance, it forms clear, high-strength gels at extremely low concentrations.

In beverages, clarity and a smooth mouthfeel comes first: at just 0.01%, TayaGel® LA forms a fluid-gel network that keeps insoluble mineral salts and even larger particles uniformly suspended.

Beyond drinks, bakery fillings, icings, jellies, gummies and layered desserts stay perfectly set thanks to the versatile gelling performance of TayaGel® LA, an alternative to traditional gelling agents like agar or gelatine.

Whether the challenge is suspending particulates, creating clear gels, or delivering stable, nuanced textures, TayaGel® LA empowers formulators deliver naturally better, high-quality products that satisfy the high expectations of today's quality-conscious consumers.

TayaGel® Modus

TayaGel® Modus expands the textural possibilities of gellan gum by enabling high-strength, elastic gels to form without the need for added ions. This ion-independent behaviour offers formulators unusual freedom, especially in systems where mineral levels are controlled or where streamlined processing is essential. The result is a reliable gelling agent that performs consistently across a wide range of product matrices.

At low concentrations, TayaGel® Modus creates clear, firm and slightly brittle gels with clean flavour release, making it a strong alternative to gelatine in desserts and confectionery applications. Its clarity and texture profile also support applications in beverages and nutrition products that require both visual appeal and structural stability.

Because it maintains its gel strength in varied formulation environments, TayaGel® Modus is well suited for developing vegan and label-friendly products that demand precision and consistency.

Minerals & Solutions

Mineral Salts

Jungbunzlauer's Mineral Salts comprise a unique range of high-purity organic sources of calcium, magnesium, potassium and zinc.

Tricalcium Citrate

Tricalcium citrate is one of the most important calcium salts used in dairy products, processed fruits, baby foods (especially infant formula), clinical nutrition, tablets, beverages and other calcium-fortified products. Its main characteristics are high calcium content (21%), excellent bioavailability and neutral taste. Direct compressible types make tricalcium citrate the preferred choice for calcium tablets. Furthermore, tricalcium citrate displays specific functionalities as a heat-stable pH regulator or firming agent in processed foods. It is also used as an anti-caking agent due to its non-hygroscopic characteristics.

Calcium Lactate Gluconate

Calcium lactate gluconate is a mixture of calcium lactate and calcium gluconate. In pharmaceuticals, it is used in effervescent tablets and instant preparations as a calcium source with excellent bioavailability. In food and beverages, the outstanding characteristics of calcium lactate gluconate combining high solubility and neutral taste lead to new applications in a wide range of products, such as clear, carbonated or concentrated beverages as well as dairy drinks and confectionery.

Trimagnesium Citrate (Anhydrous & Nonahydrate)

Trimagnesium citrates are high-purity organic salts of magnesium, characterised by superior bioavailability, good solubility and high mineral content. Jungbunzlauer offers the two commonly available forms trimagnesium citrate anhydrous and nonahydrate. Due to their neutral taste and ease of use, they are a preferred source for magnesium in food, beverages, nutritional supplements and pharmaceuticals. Agglomerated forms of trimagnesium citrate allow the direct compression of tablets. Being an excellent desiccant, it is commonly used to stabilise dry blends and to protect water sensitive ingredients.

Monomagnesium Citrate

Monomagnesium citrate is a monobasic magnesium salt of citric acid with a molar ratio of 1:1. It is used as mineral source in functional food, beverages, and food supplements.

Due to its pleasant sour taste and high solubility, it is the magnesium salt of choice for mineral fortified beverage powders. As a partly neutralised salt it can be used as a mild acidic magnesium source.

Magnesium Lactate

Magnesium lactate derives from neutralisation of lactic acid with a high purity magnesium source. Magnesium plays a vital role in the human metabolism and magnesium lactate is due to its good bioavailability used in dietary supplements and pharmaceuticals. Because of its neutral taste and high solubility magnesium lactate is also a perfect source for fortification of beverages and other liquid formulations.

Magnesium Bisglycinate

Magnesium Bisglycinate is a chelated mineral salt combining magnesium with glycine, a naturally occurring amino acid. Designed for modern food supplement applications, it offers superior bioavailability and physiological compatibility compared to inorganic sources, making it ideal for tablets, capsules, and more.

Potassium Gluconate

Potassium gluconate is used to replace sodium-containing salts in food and serves as a potassium source in supplements and food products, e.g. to maintain healthy blood pressure. Potassium gluconate shows excellent compressibility and is therefore commonly used for tablets. In technical applications, it combines an outstanding chelating capacity with an excellent biodegradability and good solubility.

Zinc Citrate

Zinc citrate is an organic zinc salt with a high mineral content (31%) and neutral taste. Due to its superior bioavailability, physiological compatibility and wide range of health benefits it is used for zinc fortification, food supplements and beauty products. In dental care products it is used due to its antimicrobial and anti-inflammatory effects and its ability to reduce the formation of dental plaque and tartar.

Zinc Gluconate

Zinc gluconate is one of the most important organic zinc sources in food supplements and fortified foods and beverages. It shows excellent solubility properties, a fast dissolution speed and a nearly neutral taste.

As an organic mineral salt it is well absorbed by the body and offers a wide range of health benefits. Due to its skin-conditioning properties, it is also widely used in skin care products.

Zinc Lactate

Neutralisation of lactic acid with a high purity zinc source and subsequent crystallisation results in zinc lactate. Compared to zinc citrate it displays a higher solubility, even though the mineral content is lower (22.0 - 24.5%). Its antimicrobial properties and ability to reduce the formation of dental plaque and tartar combined with nearly neutral taste and odour makes it an ideal ingredient for dental care products like toothpaste or mouthwash.

Citrate Esters

Esters under the brand CITROFOL® are low viscous, colourless and odourless liquids used across a broad spectrum of industries including food, personal care and technical applications.

CITROFOL® AI

CITROFOL® AI Triethyl citrate is an approved food additive and flavour carrier used mainly in beverages and egg processing. It is also approved for the use in personal care products certified according to the COSMOS Standard, as well as in detergent formulations certified according to the ECOCERT standard for natural detergents and natural detergents made with organic ingredients.

In the pharmaceutical industry, CITROFOL® AI is a standard film forming agent for acrylic and cellulosic tablet coating, as it complies with high purity and performance requirements.

CITROFOL® BI, BII

CITROFOL® BI Tributyl citrate and CITROFOL® BII Tributyl O-acetylcitrate are used for multipurpose polymer processing, mainly as plasticiser but also as processing aid and film forming agent and offer an excellent alternative to standard plasticisers like phthalates. They demonstrate equal plasticiser performance when replacing phthalates and adipates in many applications such as toys, cosmetics, pharmaceutical coatings, food contact films, food closure gaskets, medical devices and other plastic products.

All citrate esters are suitable additives for bio-based plastic materials which need to be compostable or biodegradable.

Coated Acids

Certain applications require more than the standard functionalities a regular grade of citric acid offers. Unique surface modification techniques or added high-quality materials to the core product allow for the production of an exceptional range of coated acids.

Citric Acid DC

Citric acid DC is a direct compressible citric acid. This functionality saves time and energy during the pre-processing steps before compression of effervescent tablets and at the same time leads to a higher tablet hardness at lower pressing force.

Citric Acid S40

Citric acid S40 is a very fine powder with superior free-flowing abilities for easy handling. Adding citric acid S40 to concrete or gypsum improves the rheological properties and increases their mechanical strength.

CITROCOAT® N

CITROCOAT® N is less hygroscopic and less reactive with other ingredients in crystalline form and therefore provides excellent stability for food applications like instant drinks, healthcare products or confectionery where premature reactions must be avoided. Also technical applications like laundry powders and tabs benefit from the stabilising properties of CITROCOAT® N during storage.

CITROCOAT® EP

CITROCOAT® EP is an agglomerated effervescent compound, bringing citric acid and sodium bicarbonate together in the right composition to create a highly reactive but storage-stable effervescent powder with a target pH of 5.5.

Due to the excess acidity, a rapid effervescent reaction is to be expected, and the slightly acidic pH value ensures a fresh flavour. In order to prevent premature reactions, the citric acid used in CITROCOAT® EP is coated with a thin layer of monosodium citrate.

The two effervescent components are agglomerated using a binder, reducing the potential for segregation and improving compressibility. This leads to significantly harder tablets than with a formula based on regular citric acid and sodium bicarbonate.

APIs and Excipients

Committed to our rigorous quality standards,our active pharmaceutical ingredient and excipient portfolio meets highest quality standards.

Jungbunzlauer's products can be used in various applications and provide a comprehensive solution for the entire pharmaceutical industry.

Active Pharmaceutical Ingredients

Jungbunzlauer's manufacturing site in Ladenburg, Germany, is specialised in the manufacture of active pharmaceutical ingredients (APIs). This site is registered as an API manufacturer according to §67 German Drug Law. We have acquired Good Manufacturing Practice (GMP) certificates issued by the District Government Tuebingen (Regierungspräsidium Tuebingen) as the competent authority for control of compliance with GMP-regulations for our range of APIs. Jungbunzlauer's API manufacturing plant in Germany has been confirmed to be compliant with current GMP regulations set out in the FDA and EU GMP Guide since 2001. Our current API portfolio contains four different products, which can be provided with a US DMF and/or CEP to facilitate finished drug registrations in USA, Europe and beyond. All APIs comply with the respective monograph in the United States Pharmacopoeia (USP) and/ or European Pharmacopoeia (Ph. Eur.).

Jungbunzlauer has the following APIs in its portfolio:

- Citric Acid Anhydrous
- Tripotassium Citrate Monohydrate
- Trimagnesium Citrate Anhydrous
- Trisodium Citrate Dihydrate

Excipients

Jungbunzlauer's products support the development of drugs and supplements in the pharmaceutical industry and play an important role in the composition of a variety of prescription drugs and over-the counter products. Our pharmaceutical products cover APIs as well as excipients of which the functionalities of the excipients and mineral salts are widespread. We support our customers by providing required documents and data like elemental impurities according to ICH Q3D, statements on residual solvents, nitrosamines, BSE/TSE, GMO, allergens and others.

Sweeteners

Erythritol

This portfolio is composed of ERYLITE®, ERYLITE® Bronze, and ERYLITE® Stevia. ERYLITE® based sweetening systems relate to a number of today's dietary topics, such as natural sweetening, sugar reduction/ replacement, glycemic index based diets or tooth-friendliness.

Glucose

ERYLITE®

ERYLITE® is our non-GMO Project verified polyol, a fermentation based bulk sweetener. Its main benefit is a caloric value of zero which makes it an excellent sweetener to formulate low and zero calorie foods and beverages. ERYLITE® has a glycemic index of zero, a clean sweet taste, a 60 - 70% sweetness level of sugar and shows much better digestive tolerance than other polyols.

Furthermore, it is tooth-friendly and works as cariostatic agent which makes it also suitable for dental care products. In personal care products, ERYLITE® is used as a moisturiser in skin care formulations and hair care products. It is approved in a large number of countries around the world, including the main food markets in Europe, North America and Asia.

ERYLITE® Bronze

ERYLITE® Bronze is Jungbunzlauer's version of brown or raw sugar. It is a low calorie sweetener of mild sweetness with a bronze colour and the pleasant flavour of malt and caramel. Its functionalities are the same as regular ERYLITE® and it has the same favourable physiological benefits: zero glycemic index, high digestive tolerance and tooth-friendliness.

ERYLITE® Stevia

ERYLITE® Stevia is a unique blend of ERYLITE® and Rebaudioside A, a highly pure stevia plant extract. This blend unites the taste quality, the digestive tolerance and the bulking functionality of ERYLITE® with the sweetening capacity of stevia plant extracts. The result is a zero calorie sweetening system with excellent taste and full bulk sweetener functionality. ERYLITE® Stevia is available in different sweetness levels with individual suitability to food and beverage applications.

GlucoDex® D96

Our glucose syrup, known as GlucoDex® D96, has a minimum dextrose equivalent (DE value) of 96 and a concentration of 74.5% – 75.5%.

With its high dextrose content, GlucoDex® D96 provides sweetness, a high degree of freezing point depression and excellent fermentability. This makes it an ideal ingredient for enhancing sweetness in beverages, baked goods, and ice cream, as well as for various fermentation applications, isoglucose, fructose production, and feedstock to produce ethanol.

At Jungbunzlauer, we prioritise sustainability. GlucoDex® D96 is made from the renewable raw material corn, with most of the corn being locally cultivated. It is non-GMO project verified and an integral part of our carbon footprint reduction targets.

Applications

Jungbunzlauer’s know-how and experience in ingredients guarantees innovative solutions for a broad range of applications.

In order to respond to changing consumer preferences and market trends, we are continuously monitoring scientific discoveries to apply in the development of new products, as well as the improvement of existing ones.

For more information about our solutions, please visit our website and our ingredients finder.

Food

- Food safety
- Superior stabilisation
- Sugar replacement
- Sodium reduction
- Mineral fortification

Beverage

- Excellent acidification
- Improved mouthfeel
- Taste optimisation
- Mineral fortification
- Calorie reduction

Nutrition

- Mineral fortification
- Calorie reduction
- Superior stabilisation
- Taste optimisation
- Label-friendly formulation

Animal Nutrition

- Gut-safe acidification
- Mineral fortification
- Palatability enhancement
- Electrolyte balance
- Pellet binding

Personal Care

- Antibacterial properties
- Natural perfume fixation
- Smooth moisturising
- Natural deodorising
- Viscosity control

Home Care

- Eco-friendly chelation
- Safe descaling
- Anti-bacterial cleaning
- Rheology control
- Surface protection

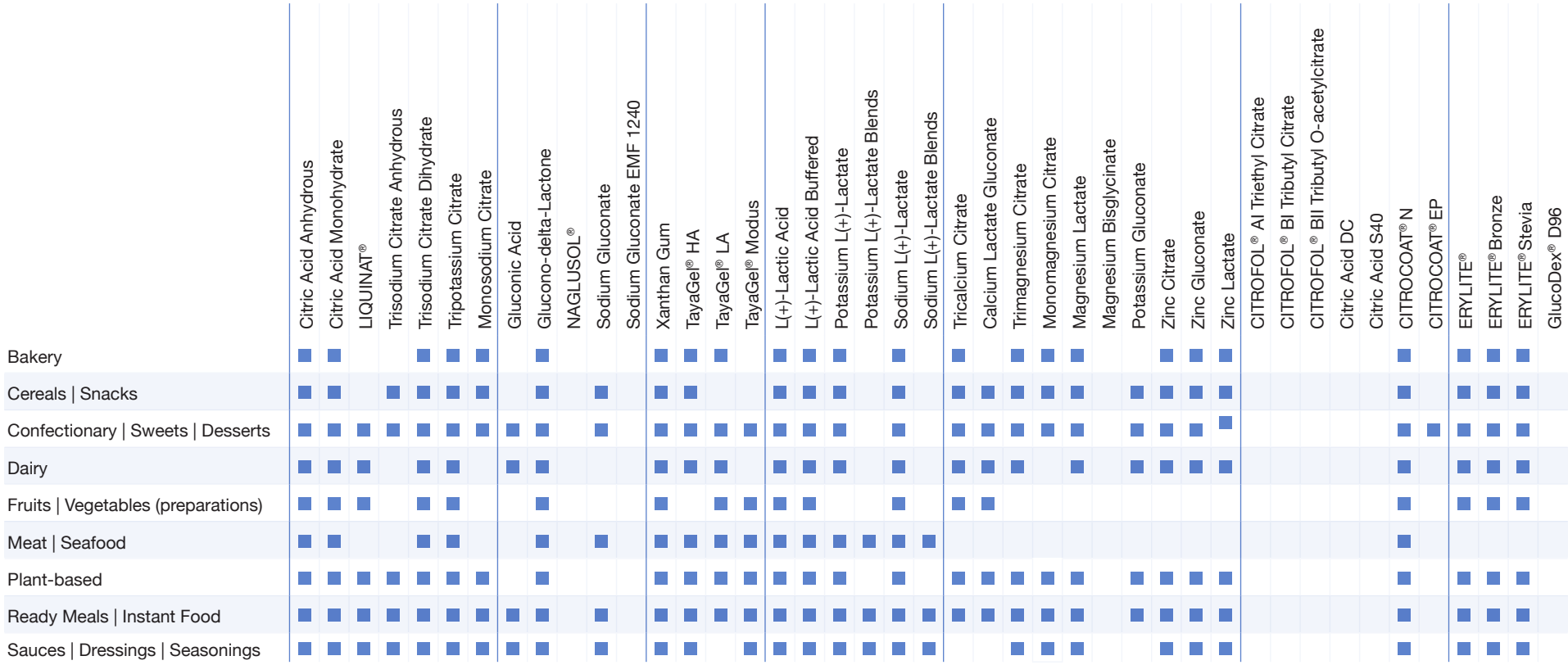
Industrial

- Drilling fluids
- Concrete set retardation
- Safe polymer softening
- Heavy metal chelation

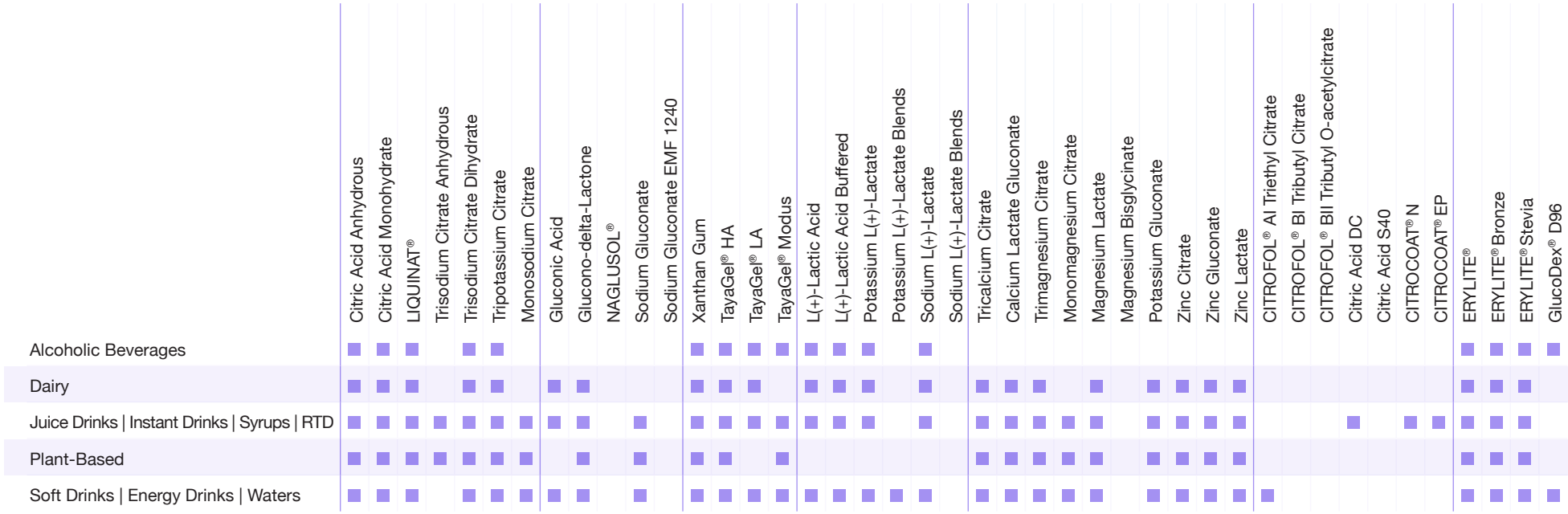
Healthcare

- Active ingredients
- Mineral sources
- Excipients
- Natural sweetening

Food


Citric Acid Anhydrous
Citric Acid Monohydrate
LIQUINAT®
Trisodium Citrate Anhydrous
Trisodium Citrate Dihydrate
Tripotassium Citrate
Monosodium Citrate
Gluconic Acid
Glucono-delta-Lactone
NAGLUSOL®
Sodium Gluconate
Sodium Gluconate EMF 1240
Xanthan Gum
TayaGel® HA
TayaGel® LA
TayaGel® Modus
L(+)-Lactic Acid
L(+)-Lactic Acid Buffered
Potassium L(+)-Lactate
Potassium L(+)-Lactate Blends
Sodium L(+)-Lactate
Sodium L(+)-Lactate Blends
Tricalcium Citrate
Calcium Lactate Gluconate
Trimagnesium Citrate
Monomagnesium Citrate
Magnesium Lactate
Magnesium Bisglycinate
Potassium Gluconate
Zinc Citrate
Zinc Gluconate
Zinc Lactate
CITROFOL® AI Triethyl Citrate
CITROFOL® BI Tributyl Citrate
CITROFOL® BII Tributyl O-acetylcitrate
Citric Acid DC
Citric Acid S40
CITROCOAT® N
CITROCOAT® EP
ERYLITE®
ERYLITE® Bronze
ERYLITE® Stevia
GlucoDex® D96
Bakery
Cereals | Snacks
Confectionary | Sweets | Desserts
Dairy
Fruits | Vegetables (preparations)
Meat | Seafood
Plant-based
Ready Meals | Instant Food
Sauces | Dressings | Seasonings

Beverage


Citric Acid Anhydrous
Citric Acid Monohydrate
LIQUINAT®
Trisodium Citrate Anhydrous
Trisodium Citrate Dihydrate
Tripotassium Citrate
Monosodium Citrate
Gluconic Acid
Glucono-delta-Lactone
NAGLUSOL®
Sodium Gluconate
Sodium Gluconate EMF 1240
Xanthan Gum
TayaGel® HA
TayaGel® LA
TayaGel® Modus
L(+)-Lactic Acid
L(+)-Lactic Acid Buffered
Potassium L(+)-Lactate
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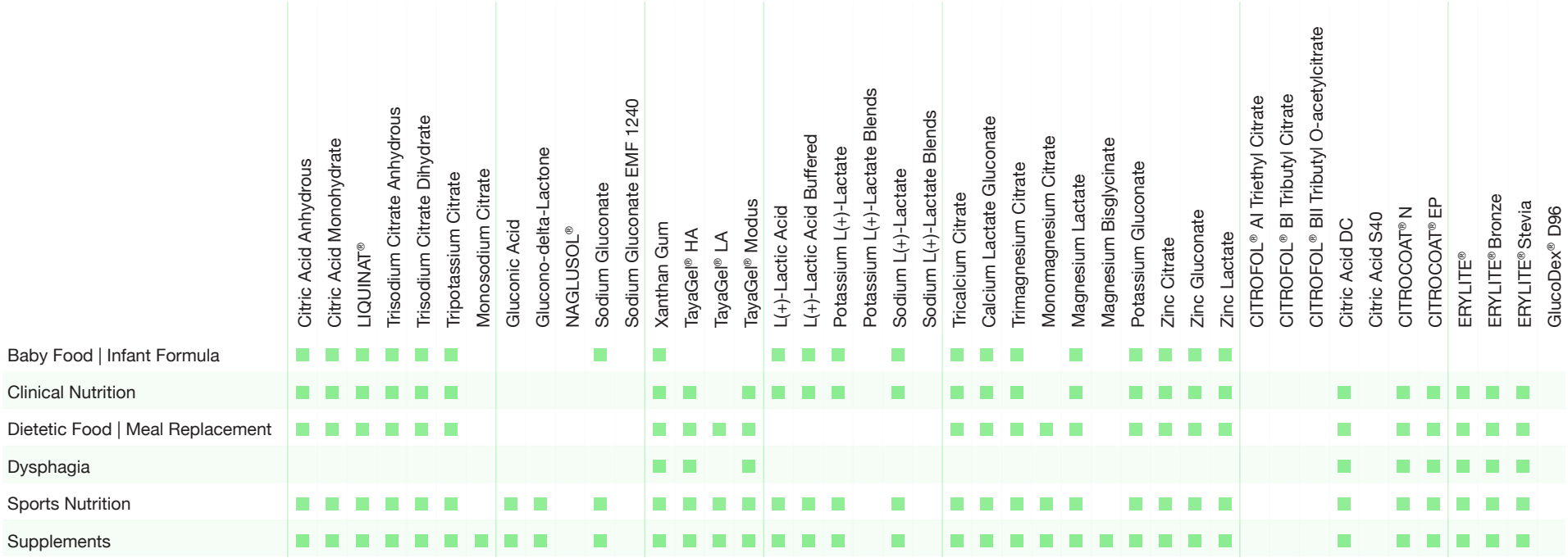
Citric Acid DC
Citric Acid S40
CITROCOAT® N
CITROCOAT® EP
ERYLITE®
ERYLITE® Bronze
ERYLITE® Stevia
GlucoDex® D96
Alcoholic Beverages
Dairy
Juice Drinks | Instant Drinks | Syrups | RTD
Plant-Based
Soft Drinks | Energy Drinks | Waters

Nutrition


Citric Acid Anhydrous
Citric Acid Monohydrate
LIQUINAT®
Trisodium Citrate Anhydrous
Trisodium Citrate Dihydrate
Tripotassium Citrate
Monosodium Citrate
Gluconic Acid
Glucono-delta-Lactone
NAGLUSOL®
Sodium Gluconate
Sodium Gluconate EMF 1240
Xanthan Gum
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TayaGel® LA
TayaGel® Modus
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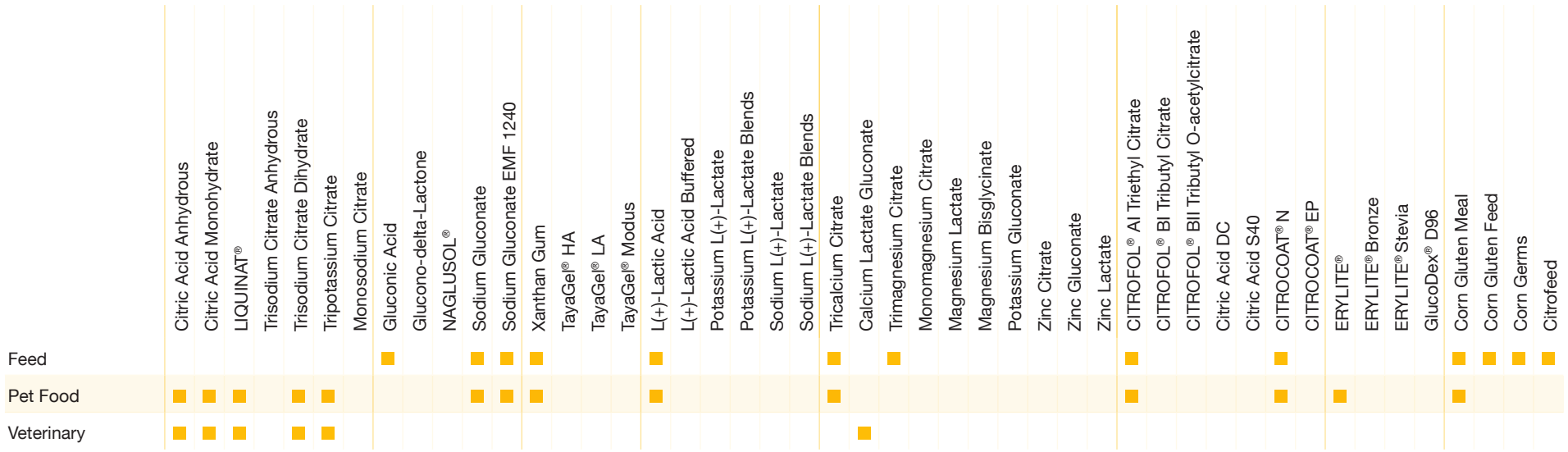
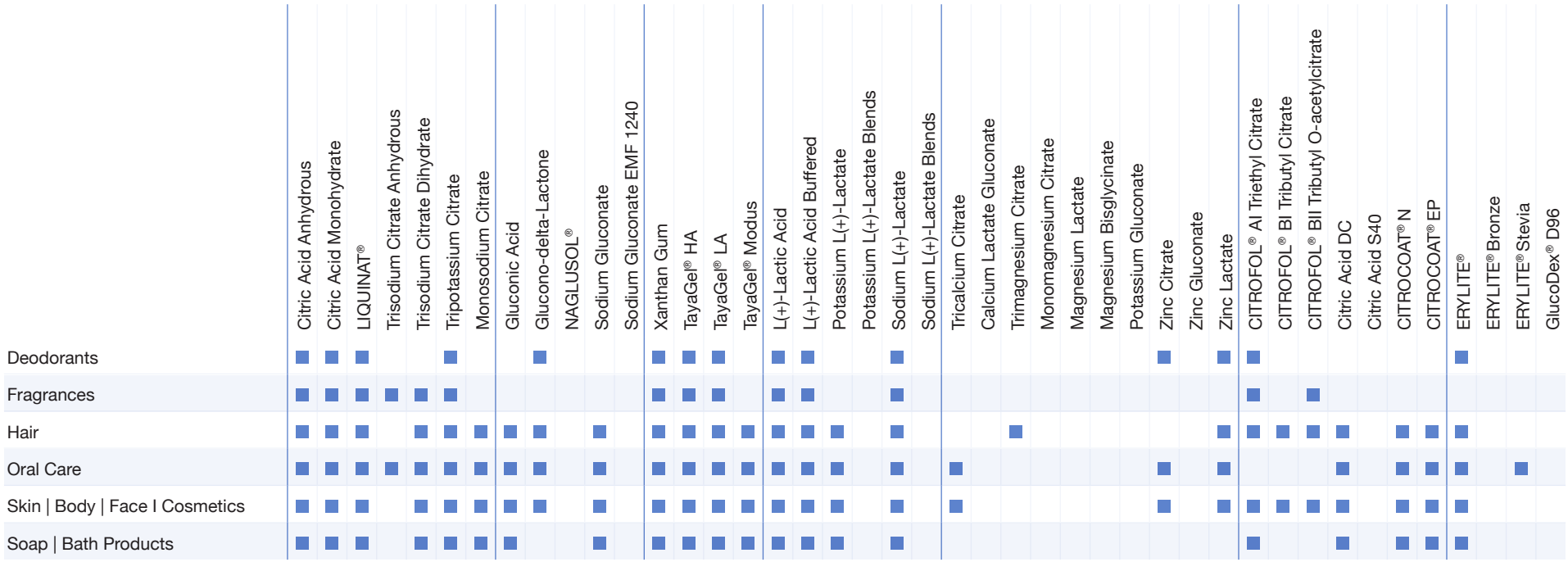
CITROFOL® BI Tributyl Citrate
CITROFOL® BII Tributyl O-acetylcitrate
Citric Acid DC
Citric Acid S40
CITROCOAT® N
CITROCOAT® EP
ERYLITE®
ERYLITE® Bronze
ERYLITE® Stevia
GlucoDex® D96
Baby Food | Infant Formula
Clinical Nutrition
Dietetic Food | Meal Replacement
Dysphagia
Sports Nutrition
Supplements

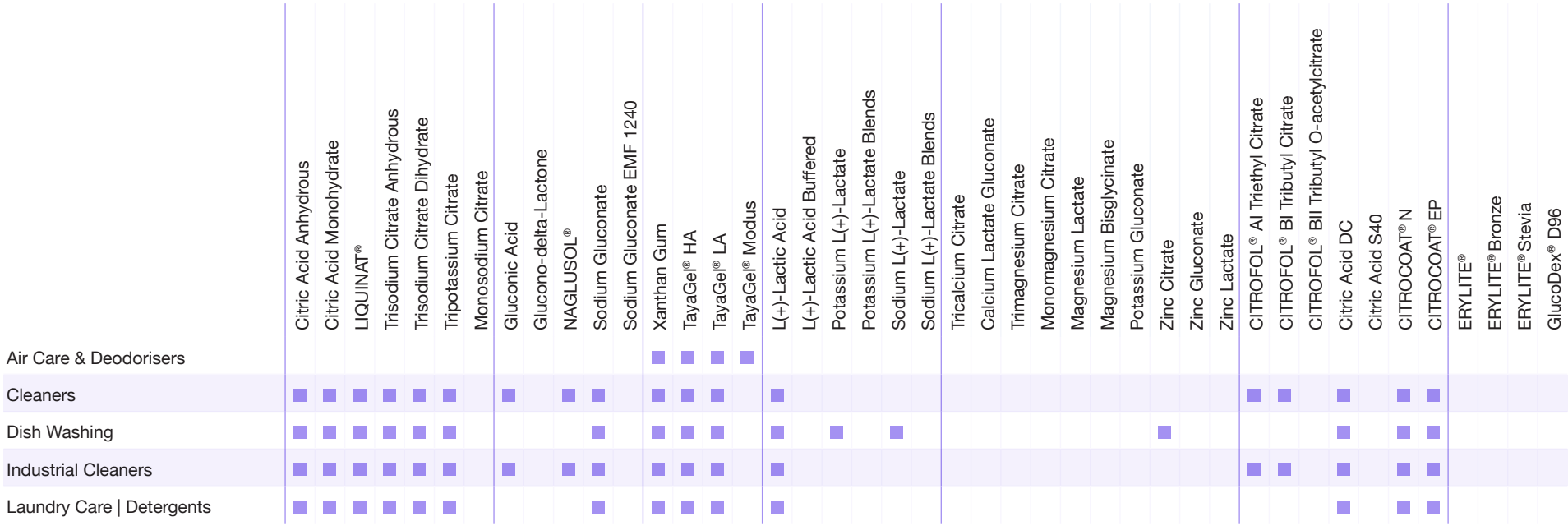
Animal Nutrition



Personal Care



Home Care


Citric Acid Anhydrous
Citric Acid Monohydrate
LIQUINAT®
Trisodium Citrate Anhydrous
Trisodium Citrate Dihydrate
Tripotassium Citrate
Monosodium Citrate
Gluconic Acid
Glucono-delta-Lactone
NAGLUSOL®
Sodium Gluconate
Sodium Gluconate EMF 1240
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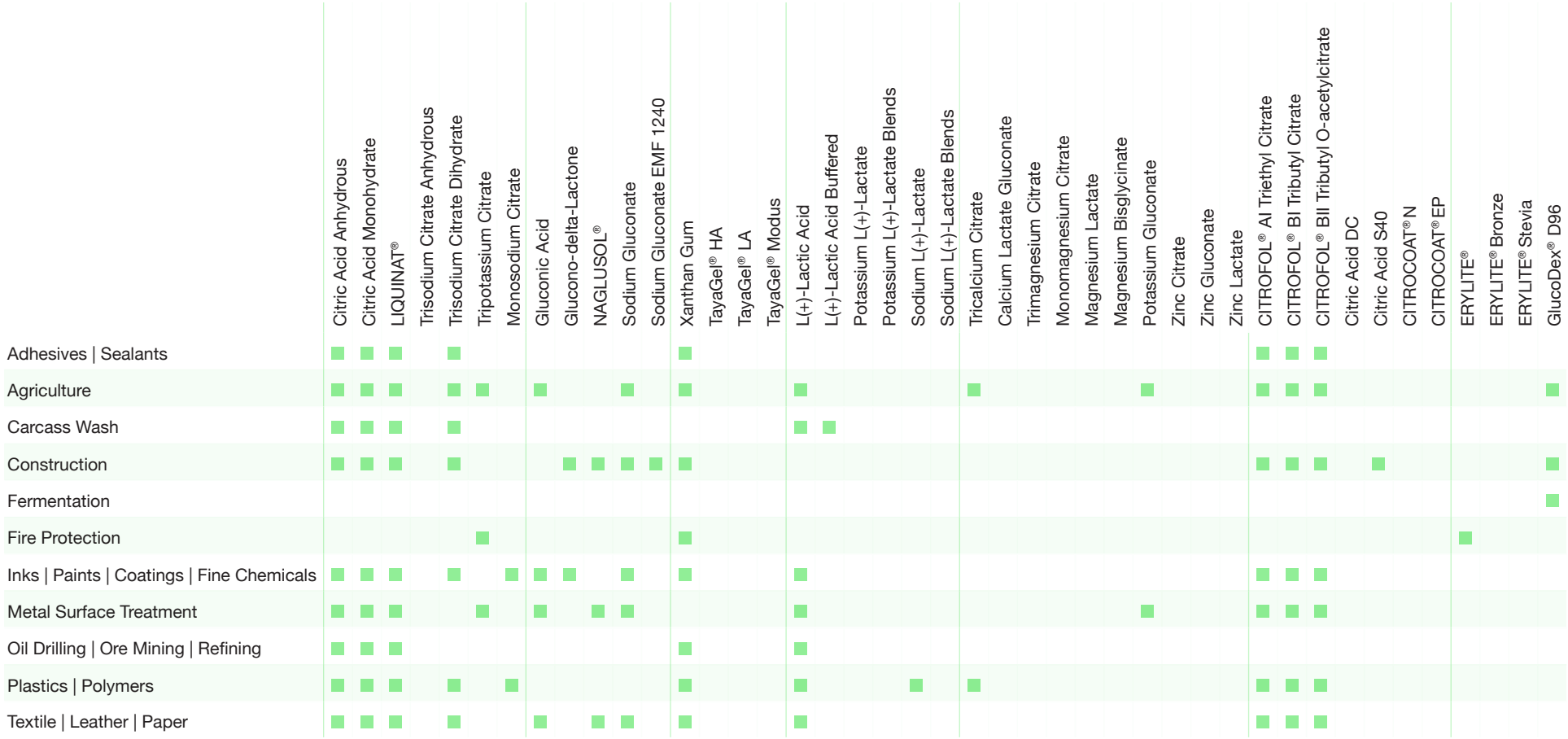
Citric Acid DC
Citric Acid S40
CITROCOAT® N
CITROCOAT® EP
ERYLITE®
ERYLITE® Bronze
ERYLITE® Stevia
GlucoDex® D96
Air Care & Deodorisers
Cleaners
Dish Washing
Industrial Cleaners
Laundry Care | Detergents

Industrial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CITROCOAT® N
CITROCOAT® EP
ERYLITE®
ERYLITE® Bronze
ERYLITE® Stevia
GlucoDex® D96
Adhesives | Sealants
Agriculture
Carcass Wash
Construction
Fermentation
Fire Protection
Inks | Paints | Coatings | Fine Chemicals
Metal Surface Treatment
Oil Drilling | Ore Mining | Refining
Plastics | Polymers
Textile | Leather | Paper

Healthcare

API's and their applications	Citric Acid Anhydrous	Tripotassium Citrate Monohydrate	Trimagnesium Citrate Anhydrous	Trisodium Citrate Dihydrate
Bowel and colon cleaning	■			
Anti-Heartburn	■			
Acidifying agent	■			■
Blood treatment	■			
Citrate source	■			
Constipation			■	
Cystitis		■		
Electrolyte replenishment		■		■
Kidney-stone management		■		
Laxative			■	■
Mineral deficency		■	■	
Muscle fuction normalisation			■	
Rehydration solution				■
Renal tubular acidosis		■		
Systemic alkaliser		■		

Excipients and their functions	Citric Acid Anhydrous	Trisodium Citrate Anhydrous	Glucono-delta-Lactone	Sodium Gluconate	Calcium Lactate Gluconate	Monosodium Citrate	Potassium Gluconate	Tricalcium Citrate	Trimagnesium Citrate	Tripotassium Citrate	Zinc Citrate	CITROFOL® AI Triethyl Citrate	CF BI	CF BII	ERYLITE®	Xanthan Gum	Citric Acid DC	CITROCOAT® N	CITROCOAT® EP
Acidifying agent	■		■			■											■	■	■
Bitterness masking agent				■											■				
Buffering agent	■	■	■	■		■		■	■	■							■	■	■
Bulking agent or carrier															■				
Chelating agent	■	■	■	■	■		■	■		■							■	■	
Desiccant		■							■										
Emollient												■							
Mineral source					■		■	■	■	■	■								
Plasticiser												■	■	■					
Release control agent																■			
Stabiliser								■								■			
Sweetener															■				
Tablet binder								■								■			
Tablet disintegrant	■														■		■	■	■
Tablet or capsule diluent								■							■				

Committed to sustainability and quality

Partnering with Jungbunzlauer for high-quality ingredients means securing a reliable, responsible supply chain that supports your sustainability goals today and anticipates tomorrow’s regulatory and market demands.

Our three pillars of sustainability commitment

ENVIRONMENTAL

We tackle climate change, improve water efficiency, reduce waste and preserve biodiversity to protect the environment.

SOCIAL

We create a safe, diverse and equal work environment where all employees can develop to their full potential.

GOVERNANCE

We offer safe and sustainable products, and promote responsible business conduct and resource use together with our business partners.

Our commitment to quality

Vegan Offering

A continuously growing number of people choose a vegetarian or vegan lifestyle.

Veganism does not stop at the edge of a plate, but covers all articles of daily use. Producers world-wide consequently adapt their range to broaden the offerings of animal-free products. Jungbunzlauer offers naturally sourced ingredients which are fully suitable for vegetarians and vegans.

*Selected Products

Non-GMO Positioning

Jungbunzlauer's non-GMO portfolio is produced from raw materials sourced under strict non-GMO specifications (except in Canada) and verified through regular testing. Our fermentation microbes are developed solely by traditional breeding technologies.

Most products made in Austria, France and Germany carry Non-GMO Project Verification, ensuring sustainable ingredients for food makers.

**Not valid for Citric Acid DC, CITROCOAT® N, CITROFOL® BI, CITROFOL® BII, ERYLITE® Blends, sub4salt®, Xanthan Gum Blends, Zinc Gluconate, Monomagnesium Citrate*

ECOCERT and COSMOS Approval

The bulk of Jungbunzlauer range of personal care and cosmetic ingredients are approved by ECOCERT COSMOS and several of our cleaning and detergent ingredients are approved by ECOCERT as ingredients of 100% natural origin.

NATRUE Approved

Most Jungbunzlauer products used in personal care and cosmetic applications are NATRUE approved as natural or derived natural ingredients.

Jungbunzlauer Group

Jungbunzlauer is represented in all major markets. Our regionalised setup of the sales organisations and respective local distribution partners enable us to provide optimal and efficient service to customers in more than 130 countries.

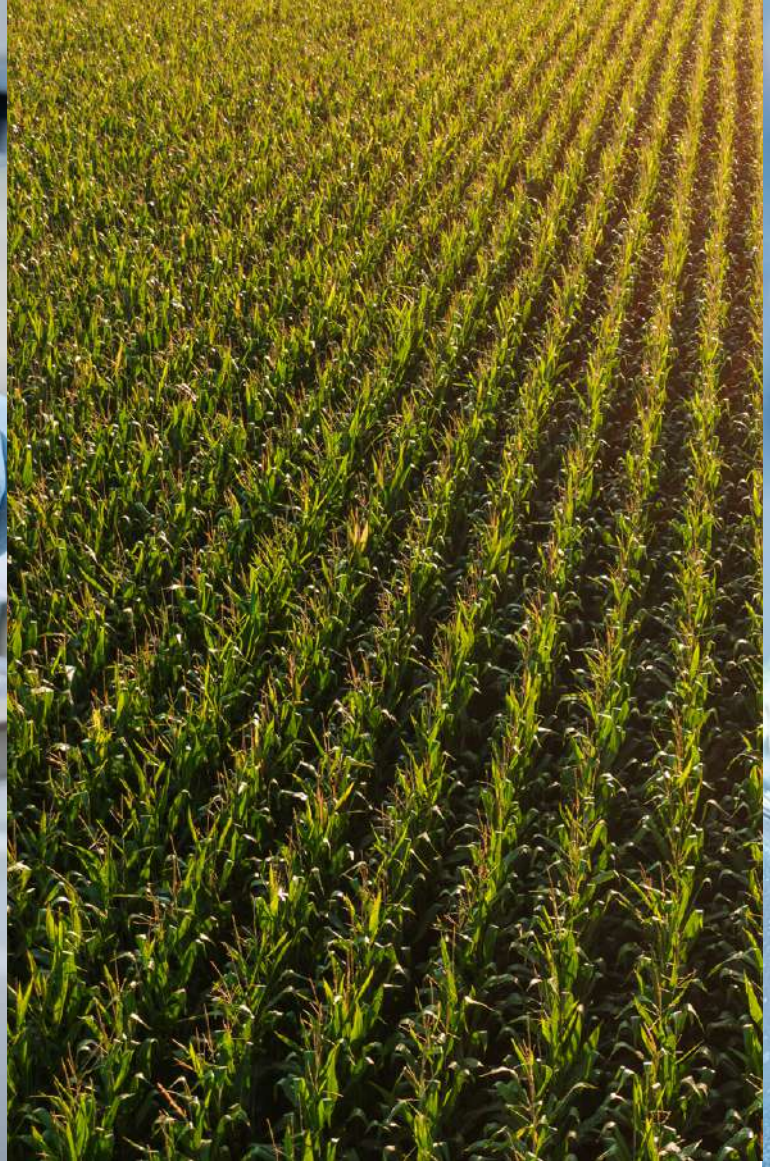
Americas

Europe

(incl. Africa and Middle East)

Asia & Pacific

■ Sales office ☐ Production site ● Production site / Sales office ○ Application development centre



Jungbunzlauer

FSC www.fsc.org
RECYCLED
Made from recycled material
FSC® C018623

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