

Solutions for sweet SUCCESS

Beverage solutions, Europe



Cargill, your partner for co-creating growth in Beverages

Leverage our passionate beverages experts with deep ingredient, application and category knowledge. We're here to support you by developing and testing fully integrated solutions that deliver consumer-pleasing beverages.

Our secrets to your beverage success:



Insights-driven innovation:

Complement your insights with our research into market trends and consumer needs to develop consumer-pleasing beverages



Broad solutions portfolio:

Leverage our broad Cargill ingredient portfolio and our partnership to deliver fully integrated solutions



Tap into reliable, knowledgeable and highly skilled beverages experts and state-of-theart facilities that are close at hand

Accelerated sustainability:

Advance your sustainability goals by leveraging our sustainability actions and commitments across the supply chain



Trusted supplier:

Scale, grow and thrive thanks to global supply chains and alternative solutions to help manage your costs

We can help you find solutions for:

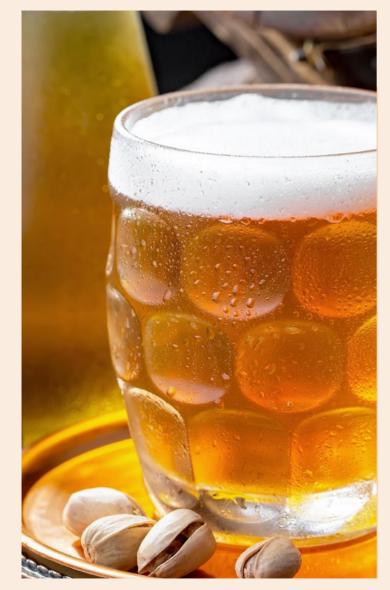
- ☑ Alcoholic drinks: Beer, Ciders, Spirits, RTDs
- ☑ Carbonated soft drinks
- ☑ Flavored / functional waters
- ☑ Nectar / juice drinks
- $\boxdot \ \, \textbf{Iced teas}$
- ☑ Hot drinks: Coffee / Tea / Cocoa
- Meal replacements
- ☑ Sports drinks, (protein) powders & gels

✓ Energy drinks

Ingredients in this document:

→
→





Alcohol

Since 1899, Cargill offers an extensive portfolio of naturederived ethanol, in different quality grades to meet the needs of different applications and customers. Supported by our own sensory panel of 'noses', we guarantee a consistent product of the highest quality, delivered via our network of interchangeable production facilities.

Product type	Features & Benefits
Grain Alcohol (Classic or Regular)	 100% wheat-based High purity Neutral organoleptic characteristics Classic has the most pure and stable nose
	 Used by the spirits industry where a grain-based alcohol is important
Potable Alcohol (Classic or Regular)	 Derived from grains and/or molasses High purity Neutral organoleptic characteristics Classic has the most pure and stable nose Also used as a processing aid and as a solvent for colorants and flavors





Sweeteners

Cargill offers one of the broadest sweetness portfolios, ranging from full- to no-calorie options, and high intensity sweeteners to offer choice to customers and consumers. Whether you're creating a new, full sugar product or (re-)formulating for balanced nutrition, we offer a complete toolbox of solutions for sweet success.

Stevia

Cargill's agricultural stevia program has been benchmarked at Silver level by Farm Sustainability Assessment (FSA) 3.0³ – becoming the first stevia producer in the industry with our entire grower network evaluated that achieved this distinction.

Cargill.com/sustainability/sustainable-stevia





A life cycle assessment (LCA) shows that EverSweet[®] advanced fermentation techniques result in improved environmental performance in key metrics such as carbon footprint, water use and land use impact compared to production from leaf or bioconversion, or traditional sugar.⁴



Cargill.com/ food-beverage/emea/ sweeteners/eversweet

fsa

Product type/name Features & Benefits High intensity sweeteners 1 0 kcal/g, Enables sugar and calorie reduction/ replacement Steviol glycosides from stevia Truvia® High purity Reb A

ial alvessides from formentation	
	Sugar reduction up to 6% SEV
ch® .	Proprietary, synergistic blends of steviol glycosides designed for optimal taste and sweetness
	Cost-effective sugar reduction up to 3% SEV
· .	High purity Reb A

Steviol glycosides from fermentation

ViaTec

Ever

′Sweet ^{® ₂}	 Advanced fermentation techniques bring to life stevia's sweetest elements – steviol glycosides Reb M and Reb D
	 Sugar reduction up to 8% SEV, with further reduction possible in combination with flavor modulators or other flavor enhancers like erythritol

1 Steviol glycosides and polyols are permitted in most energy or sugars reduced foods under "quantum satis" or under conditions of use. Foods with over 10% polyol content must carry a label "Excessive consumption may cause laxative effects" (EU Reg. 1333/2008 on food additives)

2 Product of Avansya, a joint venture between Cargill and dsm-firmenich. EverSweet® is already authorized for sale in the UK. It has also received a positive safety opinion from EFSA. Authorization for placing it on the market in the EU is expected at the beginning of 2025.

3 FSA is a standardized reference developed by SAI Platform, a food-industry organization dedicated to advancing sustainable agriculture in the food chain. It's designed to help producers assess their sustainable practices and support

- manufacturers in sourcing sustainably grown products.
- ISO/TS 19657:2017 (https://www.iso.org/news/ref2254.html)

4 LCA results have undergone a ISO14040/44 panel review, underlying report available upon request.



C ***** TruSweet[®] 01795 Fructose syrup

A 95% fructose syrup which enables 30% sugar and calorie reduction and delivers cost and usage efficiencies on top.

Fructose syrup, known as fruit sugar is perfect for

use alone or in combination with other sweeteners, thanks to its intense and fast sweetness onset. It enhances freshness and fruity notes in beverages.

It enables a 100% sucrose replacement by 70% fructose syrup, as fructose is 20 to 40% sweeter than sucrose. Further reductions are feasible when paired with stevia. A ready to use syrup, it is easy to handle, highly soluble and cost advantageous versus crystalline fructose or sucrose.

MaltWise[®] M

MaltWise[®] M wheat and barley malt syrup sets itself apart from other traditionally used brewing adjuncts. Made from wheat treated with malted barley, the syrup undergoes only mild filtration and concentration, helping to ensure nutrients and minerals remain present in the syrup. These compounds deliver important benefits to yeast fermentation. Moreover, as it is a 45DE syrup, it delivers nice mouthfeel and wellroundedness when not fermented 100%. Thanks to its light grainy taste and pale yellow color, it's a perfect fit for beer in terms of color and flavor profile.

Cargill.com/food-bev/emea/sweeteners/ maltwise-wheat-barley-malt-syrup

* ISO/TS 19657:2017 (https://www.iso.org/news/ref2254.html) Customers are in charge of how to communicate on naturality (depending country & own policy).

Product type/name	Features & Benefits
No-calorie sweeteners ¹ 0 kcal/g, Enables sugar and calorie r	eduction, Sweetness adjustment
Erythritol Zerose®	Sweetness and taste profile similar to sucrose
	· Synergistic with high-intensity sweeteners, masks off-flavors
	 Adds smoothness and body
	Good digestive tolerance
Full-calorie sweeteners 4 kcal/g, B	ulk sweeteners
Glucose syrup	· Low to moderate relative sweetness
C☆Sweet®	· Medium to high viscosity, body and mouthfeel
	· Reduced risk of sugar recrystallization
	 High dextrose syrups (>90% dextrose) serve as functional adjunct f fermentation
	 High maltose syrups (>45% DP2 or maltose) as functional adjunct f fermentation, also improving body of the beer
	 Glucose syrups with a lower DE can help bring mouthfeel and body especially important in low and no alcohol beers
Glucose-fructose syrup	Moderate to high relative sweetness
C☆TruSweet®	Cost-effective sugar replacement
Fructose syrup	· Very high relative sweetness (1.20 - 1.40 vs sucrose)
C☆TruSweet®01795	 Enables 30% claimable sugar and calorie reduction and deeper leve of reduction in combination with stevia
	· Enhances freshness and boosts fruity flavors
Dextrose	· High relative sweetness (0.7), typical sweet taste
C☆Dex®	· Flavor enhancement
	 Monohydrate or anhydrous powder, variety of particle size distributions
	· Rapid source of energy in e.g. energy drinks
	· Ideal carbohydrate source for yeast fermentation in brewing
Wheat & barley malt syrup	Milder relative sweetness
MaltWise [®] M	 Label-friendly and unrefined — meets ISO natural definition*
	Offers benefits for yeast fermentation and rehydration after exercise
	· Helps to bring back body and mouthfeel, especially important in low

Helps to bring back body and mouthfeel, especially important in low and no alcohol beers

1 Steviol glycosides and polyols are permitted in most energy or sugars reduced foods under "quantum satis" or under conditions of use. Foods with ove 10% polyol content must carry a label "Excessive consumption may cause laxative effects" (EU Reg. 1333/2008 on food additives)





Texturizers

Second only to taste is sensory enjoyment. At Cargill, we couple our texture and emulsification solutions with our in-depth application and technical expertise, to address your most challenging formulation needs. Whether you're rebuilding body and mouthfeel while reducing sugars or designing palate-pleasing textures, we offer a complete toolbox of solutions for sweet success.

Starches for emulsions

Cargill offers a portfolio of spray-dried n-OSA waxy starches (EmCap[®], EmulTru[®]) that help to create cold storage stable drinks with no clouding. Easy to use, they support development of vegan solutions and deliver stability over shelf life, whilst lowering processing costs and complexity in beverage emulsions.

Based on specialized starch modification technology, with readily available raw material, these starches can provide a cost-effective alternative to gum arabic or sodium casinate, helping you manage your formulation costs.

_		
Product type/ name	Features & Benefits	
Modified starch:	maize, waxy maize, tapioca	
EmCap [®] EmulTru [®]	 Modified starches that deliver good emulsification and texture stability whilst reducing processing costs 	
	 EmCap[®] delivers good emulsification suitable for transparent beverage emulsions 	
	 EmulTru[®] delivers very strong emulsification and excellent cold storage stability in wide variety of beverage applications 	
C☆PulpTex®	 Helps to mimic pulp effect in powdered soft drinks and juices 	
Dried glucose & Maltodextrin		
C☆Dry® GL	· Low relative sweetness	
C☆Dry® MD C☆Dry® A	· Serves as a bulking agent, bringing body and mouthfeel	
C☆NutriDry®	· Neutral taste	
	· Delivers readily available carbohydrates	
	· Easily dilutable, it is quick and easy to process	
Xanthan gum		
Satiaxane®	· Thickening, suspension and stabilizing agent	
	· Stability in acid conditions and under heat treatment	
	· Can be applied effectively at very low dosage	
Pectin		
UniPECTINE®	· Label-friendly thickener, gelling agent and texturizer	
6	· Stabilizes proteins	
2	Brings enhanced body and mouthfeel can enable a wide range of textures, making it suitable for a wide	

- variety of beverages Very good acid stability
- Supports sugar reduction by rebuilding mouthfeel and viscosity
- Can help to create a cloudy solution for low-juice beverages





Lecithin

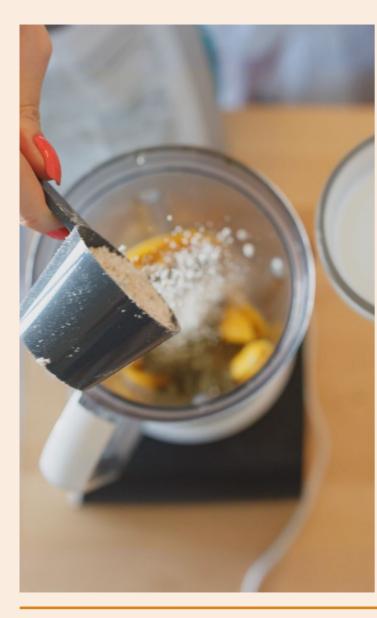
Cargill is your lecithin go-topartner for growth. Together, we can identify the best solution to overcome your business challenges. We offer an extensive range of lecithin products for beverage applications, both in terms of formats (de-oiled, fluid, fractionated), botanicals (soy, sunflower, rapeseed) and quality grades (FQ-MaxX, Premium, Standard). We ensure safe and compliant lecithin products through our Solid Supplier Management System, including non-GMO and organic options. And thanks to our global scale, we can minimize impact on your and our supply chains.

With over 70 years of experience, we are your trusted global partner with local expertise, insights, and knowhow, focused on your growth.

Product type / name Features & Benefits

De-oiled lecithin: Highly cor	ncentrated lecithin with low dosage rate
Regular lecithin Emulpur® Lecigran®	 Available in various botanicals and quality grades Neutral flavor & color - suitable for most fluid and powdered beverage applications HLB¹ value approx. 4-5: soluble in oil/ fat, water dispersible, more hydrophilic versus fluid regular lecithin
Hydrolyzed lecithin Emultop®	 Available in NGM Soy and Sunflower Neutral flavor & color - less taste impact versus fluid hydrolyzed lecithin HLB value approx. 6-8: soluble in oil/ fat, water dispersible, improved emulsification behavior
Fractionated PC- enriched lecithin Epikuron®	 Available in NGM Soy Natural Choline source - suitable for meal replacements and supplements HLB value approx. 4-6: soluble in oil/fat, water dispersible, improved emulsification behavior
Fluid lecithin	
Regular lecithin Leciprime® Topcithin®	 Available in various botanicals and quality grades Suitable for both fluid and powdered beverage applications HLB value approx. 3: easily soluble in oil/fat
Low viscous lecithin Metarin®	 Available in NGM Soy and Sunflower Ready-to-spray - does not require further dilution. Reduces processing complexity and safety risks and is ideal for powdered beverages applications Adjusted low viscosity HLB value approx. < 3
Hydrolyzed lecithin Emulfluid®	 Available in GM and NGM Soy Improved functionality as instantizing agent Suitable for most powdered beverage applications such as chocolate drinks, protein drinks and meal replacements HLB value 6-8: more hydrophilic versus fluid regular lecithin
Fractionated PC (Phosphatidyl- choline) -enriched lecithin Emulfluid®	 Available in GM and NGM Soy Balanced phospholipids profile Low dosage rate Natural choline source - suitable for fluid or powdered meal replacement drinks HLB value approx. 4-6: soluble in oil/ fat, more efficient emulsification behavior versus regular fluid and de-oiled lecithin





Plant proteins

Modern-day consumers have high expectations for beverages. Not only must they taste great; increasingly, shoppers look to satisfy a complex array of goals around health and nutrition. Proteins are an important nutritional source supplying the body with essential amino acids that it cannot synthesize on its own. Beyond nutrition, these affordable, plant-sourced proteins provide many functional benefits, while their neutral taste profile makes them easy to incorporate in a variety of protein-enriched beverages.

Product type Product name(s) Features & Benefits

Wheat Proteins Vital wheat gluten & Hydrolyzed wheat protein	Gluvital® Prowliz®
Pea Protein	PURIS™*
Isolates &	RadiPure®
Hydrolyzates	

- · Enables protein enrichment
- Unique texturizing properties
- · Mild taste profile
- Min. 75% protein content
- · Enables protein enrichment
- · Great functionality
- · Superior taste profile
- · Min. 80% protein content

Pea protein

For Plant-based beverages & sports nutrition.

Benefits of our range:

- Outstanding solubility and stability at optimal pH range for acidic and neutral dairy drinks
- Mild flavor versus other pea protein isolates
- Smooth texture, great mouthfeel, less chalkiness than other (pea) proteins
- Delivers desired viscosity across a range of protein inclusion levels

Cargill

Cargill.com/food-beverage/emea/



Fibers

Many consumers struggle to reach the daily recommend fiber intake levels. That is why Cargill is offering fortification options that can support consumers to close the fiber gap, but that can also offer functional benefits on top.



Product type/name	Features & Benefits
Citrus Fiber CitriPure®	 Supports fiber enrichment thanks to its intrinsic balanced mix of 40% soluble fiber and 60% insoluble fiber, enabling Nutri- Score improvement
	 Can help with viscosity and suspension in sugar-reduced cloudy beverages and juices
Soluble corn and wheat fiber Cargill [™] soluble fiber	 Supports fiber enrichment thanks to its high fiber content, enabling sugar and calorie reduction and/or Nutri-Score improvement
	 Made using exclusively licensed micro- reactor technology developed in partnership with Germany's Karlsruhe Institute for Technology
	· Low color and off-taste
	 Can offer improved stability, easy handling, and scalability

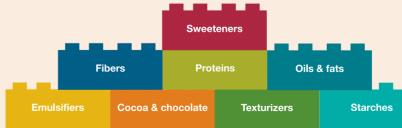




INFUSE by Cargill™ Functional Systems

Blended ingredient solutions for winning on-trend products

Under our INFUSE by Cargill[™] service offering we provide blended solutions to help fast forward your product development. We bring together Cargill's extensive ingredient portfolio and our 50+ years' experience in blending functional solutions. We can tailor the exact solution to your needs. Explore some of our building blocks for your product development:



Product type/name	Features & Benefits
Sugar replacement blend Trilisse [®] QSR 900	 Ingredient blend consisting of steviol glycosides from stevia and sucralose
	 Zero calorie blend, enabling sugar-free claim
	· Delivers a well-balanced sweetness
	 Helps to bring a more natural component/ alternative to popular artificial sweetener combination of Ace K & sucralose
Mouthfeel enhancement blend Trilisse® QMF 50	 Ingredient blend consisting of pectin and gum arabic
	 Plant-based solution for mid-calorie reduction recipes
	 Helps achieve sugar & calorie reduction claims without impacting sensory attributes: Brings back lubricity and viscosity missing in low/ zero calorie beverages Great synergies with stevia
	 Cost-competitive solution: Use our calculator to determine needed dosage of Cargill stevia and Trilisse[®]
blend Trilisse [®] MM100	 Ingredient blend consisting of pea and rice protein
	 Solution for plant-based formulation of protein-enriched muscle building sports powders
	 Delivers the right level of Essential Amino Acids, in particular leucine, isoleucine and valine (BCAA)

- Helps to deliver clean taste profile and mouthfeel
- Easily dispersed and cold soluble





Cocoa and chocolate

Goodness comes in many forms. Our cocoa powders offer endless possibilities of alluring colors, stand-out signature tastes, different fat options, organic and sustainable certifications and guaranteed consistency across the board. If you're looking for unique customized perfection, Gerkens[®] can make a powder that can transform your beverages.

Sweety: A game-changing range of cocoa powders for the beverage market

- 2 new cocoa powders with different flavor profiles
- Enabling 30% sugar reduction in a natural way, without the need for additional sweeteners
- Taste loved by consumers confirmed in consumer tests with both adults* and kids**

gerkenscocoa.com/gerkens-sweety-range/

Product type/name	Features & Benefits
DP70:	 Provides a round mouth feel and a more intense cocoa taste thanks to being naturally richer in cocoa fat (high-fat)
	 Offers just the right composition for heat treatment in combination with dairy proteins, as identified by our Cocoa Engineers
DR74:	 Thanks to months of development and finetuning by our Cocoa Engineers, the DR74 offers you the ultimate blend of cocoa building blocks
	 Our most balanced powder – offering a gentle red colored cocoa powder combined with a mild, balanced cocoa flavor
Sweety Range:	 Targeted to enable 30% sugar reduction in the end application, in a natural way (i.e. without adding any sweeteners or artificial ingredients)
	 Low in bitterness but still maintaining a strong well balanced chocolaty flavor with a strong sweet perception by consumers
	· SRB100 is stronger in chocolate/ cocoa flavor
	SRB200 is stronger in creaminess and more mild

Cárgil

* Source: Cargill Consumer Community, 90 adults **Source: Cargill Consumer Research with Ipsos, 150 kids



Decorations and inclusions

Consumers are actively seeking enriched experiences that captivate all their senses, starting with the visual appeal and subsequently delight their palates. We offer a broad expertly crafted portfolio of decorations and inclusions to create a distinctive visual and textural allure for your products and to set the stage of what is lying ahead: an extraordinary sensorial experience.

Fats and oils

Rely on us to help you create quality beverages with our broad range of liquid oils, tropical fat oils and extensive refining, blending and modifying facilities across Europe. Helping with flavor enhancement, texture and structure development, our fats and oils make your beverages enticing to consumers.

We have the broadest portfolio of oils and fats around the globe. Our global sourcing capabilities and in-depth control of the supply chain allow us to source high-quality raw materials tailored to the specifications of all our customers.

Our base oils are rapeseed, sunflower, linseed, groundnut, coconut and palm kernel oil.



Cargill's Food Solutions

The information contained herein is believed to be true and accurate. However, all statements, recommendations or suggestions are made without guarantee, express or implied, on our part. WE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE and FREEDOM FROM INFRINGEMENT and disclaim all liability in connection with the use of the products or information contained herein. All such risks are assumed by the purchaser/user. The information contained herein is subject to change without notice.

Cargill.com © 2024 Cargill, Incorporated. All rights reserved.

creating

