

## List of suppliers of reduced sugars ingredients and sugars alternatives

This document provides the details of suppliers and their reduced sugars ingredients and products that are alternatives to sugars. The list has been compiled to support work companies are undertaking to reduce the sugars content of their food and drinks. FDF have not undertaken any quality checking of the included companies or products, and it is up to businesses wanting to use the products to undertake this themselves.

If you have a product you would like to be included, please [find more information here](#). If you have any feedback on the list or would like to update any of the content, please contact Amy Glass, FDF Senior Executive (Diet and Health) at [amy.glass@fdf.org.uk](mailto:amy.glass@fdf.org.uk).

Potential applications	Product type	Function	Click company name below for more info	FDF member?
Infant formula, dairy, bakery, cereal, waters, yogurts.	Galacto-oliosaccharide	Non-digestible fibre	<a href="#">Dairy Crest</a>	No
Health bars, cakes, biscuits, salad dressings, breakfast cereals, yogurts, ice creams, morning goods, puddings, chocolate confectionery, sweet spreads and sauces, drinks, baby food.	Date paste / syrup	Sweetness	<a href="#">Beloved</a>	No
Cakes, bread	Carob flour / fibre / syrup		<a href="#">Ainsley Agroforestry &amp; Aquaponics Pty Ltd</a>	No
Beverages (energy reduced, energy, sports, fruit juice, soft drinks), cereal bars, nutritional bars, protein bars, cereals, cookies, biscuits, chocolates, chocolate bars, candies (hard/soft/gummies), meal replacement bars, milk based meal replacement.	Isomalto-oligosaccharide	Functional fibre	<a href="#">BioNeutra North America Inc</a>	No
Beverages, bakery, dairy, sauces and other food categories.	Natural flavour system	Sweetness and enhances other flavours.	<a href="#">Omega Ingredients</a>	No

Potential applications	Product type	Function	Click company name below for more info	FDF member?
Breakfast cereals, yogurts, biscuits, cakes, morning goods, puddings, ice cream, chocolate and sweet confectionery, sweet spreads and sauces.	Fruit and root-based dried pomaces	Bulk filler	<a href="#">A&amp;R House (BCL) Ltd</a>	FDF Member
Breakfast cereals, yogurts, biscuits, cakes, morning goods, puddings, ice cream, chocolate confectionery, sweet spreads and sauces.	Agave syrup and solids	Sweetener	<a href="#">Best Ground</a>	No
All Beverages (CSD, Juice based, waters, dairy based, alcohol, RTD tea / coffee). Dairy products (yoghurt, dairy desserts ice-cream) Baked goods (cookies, biscuits, cakes) Savoury (soups, sauces, dressings, condiments)	Natural flavouring		<a href="#">Kerry</a>	FDF member
Beverages & flavoured drinks.	Natural flavouring		<a href="#">Kerry</a>	FDF member
Frostings / toppings (cakes), biscuits, savoury sauces (such as sweet 'n' sour), cereal bars, flap jack type products, cakes / muffins.	Tapioca Starch, Wheat Flour, Corn Flour/Maize Starch		<a href="#">Ulrick and Short</a>	No
Baby food, bakery, beverages, cereals, confectionery, dairy, savoury	Chicory root extract	Fibre	<a href="#">Kreglinger Europe</a>	No
Yogurts, puddings, ice cream, lollies & sorbets, chocolate and sweet confectionery, sweet spreads and sauces, beverages, table top sweeteners.	Stevia	Sweetener	<a href="#">The Real Stevia Company</a>	No
	Liquorice roots	Flavour masker	<a href="#">Thew Arnott and Co</a>	No
Breakfast cereals, yogurts, biscuits, cakes, morning goods, ice cream, lollies, & sorbets, chocolate and sweet confectionery, sweet spreads and sauces, alcoholic and non-alcoholic beverages.	Natural flavouring	Sweetness and mouthfeel	<a href="#">Ungerger Ltd</a>	No

Potential applications	Product type	Function	Click company name below for more info	FDf member?
Beverages, yogurt, desserts, confection, table-top sweeteners etc.	Sweetener	Sweetener and flavour enhancer	<a href="#">Ajinomoto Europe</a>	FDf member
Beverages, yogurt, desserts, confection, table-top sweeteners etc.	Sweetener	Sweetener and flavour enhancer	<a href="#">Ajinomoto Europe</a>	FDf member
Beverages, dairy and functional foods	Stevia	Sweetener	<a href="#">Sweegen</a>	No
Breakfast cereals, yoghurts, biscuits, cakes, morning goods, puddings, ice cream, lollies, sorbets, chocolate confectionery, sweet confectionery, sweet spreads and sauces.	Chicory root fibre	Sweetness and bulk	<a href="#">Sensus b.v.</a>	No
Cereals, chocolate, confectionary, dairy products, ice cream and sorbet, jam and fruit spreads, table top, drinks.	Functional sugar replacer based on fibre	Sweetness and fibre	<a href="#">Henley Bridge Ingredients Ltd – t/as HB Ingredients</a>	No
Bakery products, cereals, chocolate, confectionary, dairy products, ice cream and sorbet, jam and fruit spreads, table top, drinks.	Functional fibre mix	Sweetness and fibre	<a href="#">Henley Bridge Ingredients Ltd – t/as HB Ingredients</a>	No
All applications e.g. Breakfast cereals, yoghurts, biscuits, cakes, morning goods, puddings, ice cream, lollies, sorbets, chocolate confectionery, sweet confectionery, sweet spreads and sauces.	Chicory fibre	Bulk sugar replacer	<a href="#">Caldic UK Ltd</a>	No
Yogurts, puddings, ice cream, lollies, sorbets, sweet spreads and sauces (e.g. chocolate spread, peanut butter, dessert sauces), beverages.	Natural flavouring	Sweetness and flavour enhancer	<a href="#">Ohly GmbH</a>	No
Beverages, dairy, sauces, chewing gum, hard boiled candies, compressed tablets, ice cream and more.	Sweetener and natural flavouring	Sweetness	<a href="#">SWEETHOUSE GmbH &amp; Co KG</a>	No

## Dairy Crest

Simon Hunt (Head of S&T), [simon.hunt@dairycrest.co.uk](mailto:simon.hunt@dairycrest.co.uk)

Galacto-oligosaccharide (GOS), produced from lactose, UK origin, comes in liquid or powder. Declared on a UK ingredients list as: galacto-oligosaccharide or could be broken down into fibre, glucose, galactose and lactose.

What does it replace?	Partial replacement of sugar.
Potential applications	Used in infant formula, dairy, bakery, cereal, waters, yogurts etc around the world.
What function does it have in the recipe?	Non-digestible fibre that stimulate the growth of specific, healthy bacteria in the digestive system (no health claims), prebiotic, pH stable down to 3, heat stable to above 140°C.
Already in products on the market in the UK, EU, or elsewhere?	Yes – UK, EU and rest of the world.
Animal or vegetable origin?	Produced from lactose from cow's milk.
Allergenic?	Contains lactose from cow's milk, so is an allergen.
Is the product a 'novel food'?	No.
Classified as a sweetener?	No.
Are any declarations on the label required?	No.
GM status?	Non-GM
When and how is the ingredient added?	As an ingredient, liquid or powder.
Different cooking temperatures or times?	Dependant on application acts as glucose syrup.
Effect on a product's shelf life?	No adverse effect.
Are maximum additive levels permitted per application?	Yes, dependant on application.
Effect on taste / consumer acceptability?	Relative sweetness of 0.4. Has a pleasant honey taste.
Cost compared with the ingredient being replaced.	Depends on volume and application.
Any long-term health effects?	Positive, although improvements in gut micro flora cannot be claimed.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.
Any ethical / environmental considerations for souring?	No.
Does the manufacturing site have standard certifications such as BRC?	Yes, BRC A grade

## Beloved

Carol Sycamore (Technical Sales Developer), [carol.sycamore@belovedates.com](mailto:carol.sycamore@belovedates.com)

Date Paste / Date Syrup from the UAE. UK ingredients list: dates, date paste, date syrup, or date juice concentrate.

What does it replace?

Sweeter than sugar so replaces sugar at lower amounts thus reducing sugar.

Potential applications

Health bars, cakes and biscuits, salad dressings, breakfast cereals, yogurts & ice creams, morning goods, puddings, chocolate confectionery, sweet spreads and sauces, drinks, baby food

What function does it have in the recipe?

Date Paste is 100% dates so no added sugar - just fruit. Date syrup is sweeter than sugar so less can be used.

Already in products on the market in the UK, EU, or elsewhere?

Yes UK, snack bars and bites, breakfast cereals and cereal bars, salads, cakes and puddings

Animal or vegetable origin?

Vegetable

Allergenic?

Non-allergenic. Doesn't need "may contain" warnings"

Is the product a 'novel food'?

No.

Classified as a sweetener?

Not a sweetener – naturally occurring sugars

Are any declarations on the label required?

No.

GM status?

Non-GM

When and how is the ingredient added?

As a direct substitute for sugar at the creaming stage, or heated and mixed in or just blended in.

Different cooking temperatures or times?

No.

Effect on a product's shelf life?

Has a low water activity, so can prolong shelf life.

Are maximum additive levels permitted per application?

N/A.

Effect on taste / consumer acceptability?

Adds caramel / toffee notes and enhances flavours both savoury and sweet.

Cost compared with the ingredient being replaced.

Similar to maple syrup / honey – but more than sugar.

Any long-term health effects?

Benefits of increased fibre, minerals and antioxidants.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?

No COSHH implications. Storage at ambient

Any ethical / environmental considerations for sourcing?

No.

Does the manufacturing site have standard certifications such as BRC?

Both Beloved and manufacturing site has BRC accreditation (AA and A grade)

## Ainsley Agroforestry & Aquaponics Pty Ltd

George Ainsley (Owner), [georgeainsley2@bigpond.com](mailto:georgeainsley2@bigpond.com)

Carob flour, milled from the Carob fruit. Carob fibre, the product remaining after the natural sugars have been extracted. Carob syrup, formed from the natural extracted sugars. Australian or West Australian.

**What does it replace?**

The Carob flour has natural sugars which break down slowly so when cakes or bread are baked there is no need to add sugars.

Carob fibre has had all the sugars removed and can be used for improving dietary health.

Carob syrup can be used for addition to tasteless foods to make them more attractive whilst still keeping the dietary health benefits of the Carob.

**Potential applications** Cakes, bread.

**What function does it have in the recipe?** The substantial potential to be utilised in developing functional foods with health benefits such as effectiveness in prevention of colon cancer, lowering cholesterol and reducing the risk of type 2 diabetes.

**Already in products on the market in the UK, EU, or elsewhere?** Yes, in UK via [Savvyfoods.co.uk](http://Savvyfoods.co.uk), Spanish, Italian, Greek, Cypriot and Turkish Carob growers. Also, being grown and produced in West Australia and South Australia.

**Animal or vegetable origin?** Vegetable

**Allergenic?** Non-allergenic. Naturally sweet with no additives, tastes similar to chocolate and is good for people with an allergy to chocolate. If necessary it could have 'MAY CONTAIN' wording to satisfy legal requirements.

**Is the product a 'novel food'?** No.

**Classified as a sweetener?** It can be declared as a natural sweetener with no added sugars.

**Are any declarations on the label required?** Purely natural, no added sugars, clean and green.

**GM status?** GM free. All our trees are completely GM free so all products are GM free.

**When and how is the ingredient added?** The Carob flour, fibre or syrup can be added at the same time as other ingredients to any recipe.

**Different cooking temperatures or times?** Reduced amounts of Carob flour will have to be used in order to prevent cakes or bread from burning.

**Effect on a product's shelf life?** No effect on product's shelf life but we use a 12 month shelf life.

**Are maximum additive levels permitted per application?** Not an additive.

**Effect on taste / consumer acceptability?** Taste will be naturally sweet but with no added sugars.

Cost compared with the ingredient being replaced.	Still to be determined.
Any long-term health effects?	Improves dietary health, lowers blood cholesterol, lowers blood sugar levels, fights type 2 Diabetes.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	Food safe procedures should be used when handling to prevent contamination.
Any ethical / environmental considerations for sourcing?	The products come from the Carob fruit which grow on Carob trees. It can be stated that the Carob trees are rejuvenating the land and providing a natural food source at the same time.
Does the manufacturing site have standard certifications such as BRC?	We don't have BRC certification but will have to comply with Australian Foods Standards for production of foods here in Australia. The Australian Foods Standards will ensure that it is the best quality. I'm not sure which is the strictest, BRC or AFS but to comply with Australian Food Standards and especially if exporting, then your standards must be very good.

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## BioNeutra North America Inc.

Robert Sikora (Business Development Manager, Europe), [robert.sikora@bioneutra.ca](mailto:robert.sikora@bioneutra.ca)

Isomalto-oligosaccharide (IMO) derived from pea, tapioca and corn starch through a patented enzymatic hydrolysis process (from Canada, Indonesia and China). Powder and Syrup versions are produced. We are EFSA approved as a Novel Food Ingredient where customers can list our ingredient as "Isomalto-oligosaccharide" or "IMO" or "Soluble Fiber from Pea/Tapioca/Corn Starch".

What does it replace?	IMO is a replacement of all sugar types, as an alternative it is 60% the sweetness of sucrose at ~2kcal/g.
Potential applications	Beverages (energy reduced, energy, sports, fruit juice, soft drinks), cereal bars, nutritional bars, protein bars, cereals, cookies, biscuits, chocolates, chocolate bars, candies (hard/soft/gummies), meal replacement bars, milk based meal replacement.
What function does it have in the recipe?	IMO provides a significant reduction in the calorie, sugar content of products without sacrificing on the taste, texture or mouthfeel. With a functional fibre content of up to 70% (depending on product) it has a great benefit of fibre addition included.
Already in products on the market in the UK, EU, or elsewhere?	Yes, we have several customers producing consumer products using our IMO. We are present in the EU as well. 70% of our end use is in protein/nutritional bars. Candies, cereals and chocolates are also important segments currently. We are very strong in our North America presence, where we are also used in dairy products along with the aforementioned products.
Animal or vegetable origin?	Vegetable origin. Vegan and vegetarian option. Also Non-GMO verified, Kosher, Halal. Organic option available.
Allergenic?	We have statements in regard to being completely allergen free. IMO is also dairy free, no preservatives, non-GMO, no artificial flavours, no artificial colours, vegan, gluten free.
Is the product a 'novel food'?	We are EFSA approved as a Novel Food Ingredient, FDA GRAS approved and Health Canada approved.
Classified as a sweetener?	Yes, we are a natural sweetener.
Are any declarations on the label required?	Clean label. Can say it is a source of fibre. Source of glucose.
GM status?	All our products are non-GMO and the enzymes used in our process are non-GMO as well.
When and how is the ingredient added?	It is a direct replacement of sugars, thus there is no real change in production process. Thus, allows for products to retain their functional properties (feel, texture, mouthfeel, binding, looks, colour).
Different cooking temperatures or times?	IMO is stable in its properties up to cooking temperatures of 320 Farenheight.

Effect on a product's shelf life?	The ingredient does not affect the shelf life of the product. The ingredient itself has a shelf life of 2-3 years depending on powder or syrup.
Are maximum additive levels permitted per application?	We have approved dosage levels for specific applications based on tolerance levels.
Effect on taste / consumer acceptability?	Consumer specific, but we are in many applications where demand continues to grow due to the consumers love of taste and texture (ice cream, bars etc). We have retail sales on line where customers can buy our products and the comments in regard to taste and texture are very positive.
Cost compared with the ingredient being replaced.	We are more expensive than raw commodity sugars, but less expensive than sugar alcohols like Stevia, erythritol, less expensive than FOS, Inulin.
Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No PPE required.
Any ethical / environmental considerations for sourcing?	No.
Does the manufacturing site have standard certifications such as BRC?	Yes, all our plants are certified accordingly with BRC.

## Omega Ingredients Ltd

Martyn Warner (Technical Manager), [martyn@omegaingredients.co.uk](mailto:martyn@omegaingredients.co.uk)

ΩMegaSweet® is a new generation “natural flavour system” designed to replace sugar in food and beverages by intensifying flavour, enhancing mouthfeel and boosting natural sweetness, enabling sugar reduction up to 50%

- retaining the indulgent taste and mouthfeel of sucrose
- having a quick onset, no bitterness and no lingering aftertaste
- minimal calorie contribution
- containing 100% natural flavour materials
- providing clean label declaration of “Natural Flavouring”.

It is available in both liquid and powder form.

ΩMegaSweet® works remarkably well in combination with other sweeteners, resulting in a new creation called ΩMegaSweet® Extra containing Stevia which can still be declared as “Natural Flavouring” according to Regulation (EC) No. 1334/2008 and “Sweetener: Steviol glycosides” on ingredient label declarations.

What does it replace?	Applicable to a wide variety of applications. Formulations can be tailored to suit application. Replaces all types of sugar/sweetness.
Potential applications	Sugar reduction in beverages, bakery, dairy, sauces and other food categories.
What function does it have in the recipe?	Reduces the requirement for sugar by imparting sweetness as well as modifying other aspects of the flavour helping with sweetness perception.
Already in products on the market in the UK, EU, or elsewhere?	Sold to customers as a natural flavouring - confidential info.
Animal or vegetable origin?	Vegetable.
Allergenic?	No – manufactured at an allergen free site.
Is the product a ‘novel food’?	No - this is not a novel food.
Classified as a sweetener?	No
Are any declarations on the label required?	Natural Flavouring
GM status?	Non-GMO
When and how is the ingredient added?	Added when the flavouring ingredient is added to the food as normal.
Different cooking temperatures or times?	No.
Effect on a product’s shelf life?	No known effects on shelf life.
Are maximum additive levels permitted per application?	Yes - when applicable for stevia containing solution.
Effect on taste / consumer acceptability?	Helps to build sweetness and mouthfeel lost by the removal sugar.

Cost compared with the ingredient being replaced.	Depends on application and quantity of sugar being replaced.
Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.
Any ethical / environmental considerations for sourcing?	No.
Does the manufacturing site have standard certifications such as BRC?	Yes, BRC v7 Grade AA

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## A&R House (BCL) Ltd – FDF member

Alistair House, alistair@purnhousefarm.co.uk

Fruit and root-based dried pomaces, from fruit, grain and vegetable origins (powder). UK sourced. UK ingredients label: Dried fruit extracts

What does it replace?	All sugars.
Potential applications	Breakfast cereals, yogurts, biscuits, cakes, morning goods, puddings, ice cream, chocolate products, sweet confectionery, sweet spreads and sauces,
What function does it have in the recipe?	Bulk filler.
Already in products on the market in the UK, EU, or elsewhere?	In the EU.
Animal or vegetable origin?	Vegetable.
Allergenic?	Allergen free.
Is the product a 'novel food'?	No.
Classified as a sweetener?	No
Are any declarations on the label required?	No.
GM status?	Non-GMO
When and how is the ingredient added?	In the wet phase.
Different cooking temperatures or times?	Yes, potentially, more work needs to be done on this.
Effect on a product's shelf life?	
Are maximum additive levels permitted per application?	Not aware of any, but these are overridden by practical inclusion rates.
Effect on taste / consumer acceptability?	To be confirmed.
Cost compared with the ingredient being replaced.	It varies on water holding capacity, particle size etc.
Any long-term health effects?	Only positive.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	Yes, if the dust is fine, there are ATEX considerations.

Any ethical / environmental considerations for sourcing?

Yes, but all positive.

Does the manufacturing site have standard certifications such as BRC?

Yes, SALSA at present, but working towards BRC.

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## Best Ground International

Aime Carolina Puebla (Business Development), aime@bestground.com

Agave Syrup (liquid) and Agave Syrup Solids (powder), from Agave Tequilana Weber (Mexico) – liquid. UK ingredients list: Agave syrup

What does it replace?	Sugar
Potential applications	Breakfast cereals, yogurts, biscuits, cakes, morning goods, puddings, ice cream, chocolate products, sweet spreads and sauces.
What function does it have in the recipe?	Sweeten with a low-glycemic index.
Already in products on the market in the UK, EU, or elsewhere?	UK, EU, rest of world.
Animal or vegetable origin?	Vegetable.
Allergenic?	Allergen free
Is the product a 'novel food'?	No.
Classified as a sweetener?	Yes
Are any declarations on the label required?	No.
GM status?	Non-GMO
When and how is the ingredient added?	For most processes will be the same as sugar.
Different cooking temperatures or times?	Yes, lower temperature, shorter time.
Effect on a product's shelf life?	
Are maximum additive levels permitted per application?	No.
Effect on taste / consumer acceptability?	Well accepted. The flavour is very pleasant. No after taste.
Cost compared with the ingredient being replaced.	2.5x
Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.

Any ethical / environmental considerations for sourcing?

No.

Does the manufacturing site have standard certifications such as BRC?

FSSC 22000

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## Ulrick and Short Ltd

Adrian Short (Director), [adrian@ulrickandshort.com](mailto:adrian@ulrickandshort.com)

'avanté': Country of origin, Germany; format, powder. Ingredient declaration: Depending on which avanté used (application specific) it would either be: 1. 'Tapioca Starch' 2. 'Wheat Flour' 3. 'Corn Flour' or 4. 'Maize Starch'.

What does it replace? The work completed and successful so far is in the replacement of either granular sugar or invert sugar syrup. Other replacements looked at included glucose /fructose reduction.

Potential applications Application successful (commercial) so far: Frostings /toppings (cakes), biscuits, savoury sauces (such as sweet 'n' sour), cereal bars, flap jack type products, cakes / muffins.

What function does it have in the recipe? By using avanté in conjunction with adjustment in water levels then we can mimic the functionality of sugar in the product it goes into. In finished formulation sugar content is reduced and overall calorie content. We have written a practical technical paper on the functionality of sugar in cake and happy to share.

Already in products on the market in the UK, EU, or elsewhere? Yes - already available and being sold within the UK and EU. In major retailers. Happy to share this information but we would need consent from the manufacturers involved or an NDA in place before we reveal specific products.

Animal or vegetable origin? Vegetable.

Allergenic? Only one product in the avanté range (there are 5 in the range) contains allergens (wheat), all the others are allergen free. We don't see that as an issue as a lot of sugar reduction is based around bakery products that contain wheat flour. The other products do not contain a "may contain" allergen label, they are allergen free.

Is the product a 'novel food'? No.

Classified as a sweetener? No.

Are any declarations on the label required? None, other than the crop declaration and the allergen notice of the one product outlined above.

GM status? All our products are Non -GMO

When and how is the ingredient added? Added with dry ingredients / the same or similar time and way as the sugar it replaces

Different cooking temperatures or times? No.

Effect on a product's shelf life? We have some informal taste panel information we can share. We have found the product acceptable up to 30% sugar replacement so far.

Are maximum additive levels permitted per application? No.

Effect on taste / consumer acceptability? We have some informal taste panel information we can share. We have found the product acceptable up to 30% sugar replacement so far.

Cost compared with the ingredient being replaced. Typically costs around £1.50/Kg in use v's the £/kg cost of sugar.

Any long-term health effects? No.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions? No.

Any ethical / environmental considerations for sourcing? No.

Does the manufacturing site have standard certifications such as BRC? Yes – All are GFSI certified

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Kerry – FDF member

Mike Gray (RD&A Technologist), [mike.gray@kerry.com](mailto:mike.gray@kerry.com)

TasteSense™ from Mozzo, Italy, available in liquid and powder. UK ingredients list: Natural Flavouring

What does it replace?

Replaces up to 30% sugar.

Potential applications

Potential application:

- All Beverages (CSD, Juice based, waters, dairy based, alcohol, RTD tea / coffee).
- Dairy products (yoghurt, dairy desserts ice-cream)
- Baked goods (cookies, biscuits, cakes)
- Savoury (soups, sauces, dressings, condiments)

Additionally, TasteSense™ is very easy to use in application.

What function does it have in the recipe?

TasteSense™ allows reduction of up to 30% sugar in a range of products without compromising on taste. With the clean label declaration of 'natural flavouring', for some products where natural flavourings are already included, the ingredients list may not need to change at all. 'Sugar reduced' claim can be made when 30% or more of the total sugar is reduced.

Already in products on the market in the UK, EU, or elsewhere?

TasteSense™ is currently used in various product types (beverage, yoghurt, desserts, bakery) across Europe (UK, Ireland, France, Holland, Belgium, Italy) and Globally (US, Asia).

Animal or vegetable origin?

'TasteSense™ is suitable for vegetarians (ova-lacto) and vegans.

Allergenic?

TasteSense™ does not contain any allergens and all reasonable precautions that could be expected of a responsible manufacturer have been taken to prevent cross contamination in the raw materials used and in the manufacturing process. There are no other effects on product safety caused by TasteSense™.

Is the product a 'novel food'?

TasteSense™ is declared as a natural flavouring in compliance with regulation (EU) 1334/2008. We follow the guidelines in place by EFSA and the European Commission in relation to flavours with modifying properties.

Classified as a sweetener?

Are any declarations on the label required?

GM status?

When and how is the ingredient added?

TasteSense™ brings back the taste that is lost when sugar is reduced. Where sugar plays a functional role in addition to taste (e.g. bulk, texture, shelf life) additional ingredients need

to be used to address these functional issues. Kerry can create a system which ties in TasteSense™ and the other necessary ingredients to address all the issues / challenges that come about when sugar is reduced.

Different cooking temperatures or times?

Effect on a product's shelf life?

Effect on shelf-life is product dependant. TasteSense™ itself will have no impact on changing the shelf-life of a product but the reduction of sugar may alter water activity which has an effect on micro stability.

Are maximum additive levels permitted per application?

The maximum recommended dosage of TasteSense™ is 0.1% as consumed.

Effect on taste / consumer acceptability?

TasteSense™ brings back the taste that is lost when sugar is reduced. Consumer tests have shown that a 30% sugar reduced beverage containing TasteSense™, was judged to be equal in preference compared to a full sugar beverage.

Cost compared with the ingredient being replaced.

For a 30% sugar reduction in a standard 10brix CSD, TasteSense™ at max recommended dosage of 0.1% has a neutral cost impact versus sugar at current market prices.

Any long-term health effects?

Not aware of any.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?

No.

Any ethical / environmental considerations for souring?

No.

Does the manufacturing site have standard certifications such as BRC?

## Kerry – FDF member

Mike Gray (RD&A Technologist), mike.gray@kerry.com

### TasteSense™ Plus

**What does it replace?** Allows for >30% reduction added sugar in beverages. Used in applications where stevia and flavourings are approved for use, and must take into consideration restrictions/exceptions in each individual food category.

**Potential applications** Beverages & flavoured drinks.

**What function does it have in the recipe?** 'Sugar reduced' claim can be made when 30% or more of the total sugar is reduced. Allows reformulation of beverages to <5g sugar / 100ml. Improved taste profile versus stevia sweetener. Kerry can create a system which ties in TasteSense™ Plus and the other necessary ingredients to address all the issues / challenges that come about when sugar is reduced.

**Already in products on the market in the UK, EU, or elsewhere?** Recent product launch therefore new to market.

**Animal or vegetable origin?** 'TasteSense™ Plus is suitable for vegetarians (ova-lacto) and vegans.

**Allergenic?** TasteSense™ does not contain any allergens and all reasonable precautions that could be expected of a responsible manufacturer have been taken to prevent cross contamination in the raw materials used and in the manufacturing process. There are no other effects on product safety caused by TasteSense™.

**Is the product a 'novel food'?** No.

**Classified as a sweetener?** Can only be used in applications where stevia and flavourings are approved for use, and must take into consideration restrictions/exceptions in each individual food category.

**Are any declarations on the label required?** Natural flavouring for TasteSense(TM) Plus Steviol glycosides E960 would need to be included as this technology is only suitable for applications where stevia and flavourings are approved for use.

**GM status?**

**When and how is the ingredient added?** Kerry's solution for developing naturally sweetened mid to low-calorie beverages. Utilises a combination of TasteSense™ Plus and Stevia to build back sweetness impact and to mask any off notes or bitterness.

**Different cooking temperatures or times?** No.

Effect on a product's shelf life?	Effect on shelf-life is very product dependant. TasteSense™ itself will have no impact on changing the shelf-life of a product but the reduction of sugar may alter water activity which influences micro stability.
Are maximum additive levels permitted per application?	N/A
Effect on taste / consumer acceptability?	Technology new to market. Therefore, will be able to provide a more definitive answer in time.
Cost compared with the ingredient being replaced.	Neutral cost impact versus stevia sweetener.
Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.
Any ethical / environmental considerations for souring?	No.
Does the manufacturing site have standard certifications such as BRC?	

## Kreglinger Europe

Drew Mansbridge (Technical Account Manager), dm@kreglinger.com

Chicory root extract. Both powder & syrup.

Hot water extraction from the root same as sugar but 100% classed as a fibre - labelled on a UK ingredients list as "chicory root fibre". Options range from 50% sweetness of sugar downwards. Chicory roots are grown and processed in Belgium.

What does it replace? Replaces sucrose into solid and liquid end products.

Potential applications Baby food, bakery, beverages, cereals, confectionery, dairy, savoury.

What function does it have in the recipe? As a fibre it is a 1:1 replacement of sucrose sugar or glucose syrup. Powder option has a full EFSA Health Claim. In turn allowing a pre-biotic claim. Only possible for material as produced by Beneo [www.beneo.com](http://www.beneo.com)

Already in products on the market in the UK, EU, or elsewhere? Yes - In UK, In EU and in Rest of the World. In all major retailers in the UK.

Animal or vegetable origin? Vegetable.

Allergenic? Non-allergenic. Ingredient itself is allergen free and site is dedicated to just producing chicory root fibres. So, no need to declare any allergen warning.

Is the product a 'novel food'?' No.

Classified as a sweetener? No - not classed as a sweetener.

Are any declarations on the label required? No issue as is clean label.

GM status? GMO Free – Raw materials grown in Belgium and processed in Belgium.

When and how is the ingredient added? As to powder sugar or syrup.

Different cooking temperatures or times?

Effect on a product's shelf life? No adverse effect.

Are maximum additive levels permitted per application? No. However addition rate is limited to @8 grams per serving for fibre based reasons.

Effect on taste / consumer acceptability? Some perceived loss of sweetness compared to full sugar replacement.

Cost compared with the ingredient being replaced. Slightly more expensive compared to sucrose.

Any long-term health effects? No - EFSA declare larger amounts of consumption are good for the consumer.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions? No - treated as to other fibres.

Any ethical / environmental considerations for sourcing?

No - EU sourced and produced.

Does the manufacturing site have standard certifications such as BRC?

Producer has IFS certification / approval.



## The Real Stevia Company

Tatiana Rojas (Sales Director), [tatiana.rojas@realstevia.com](mailto:tatiana.rojas@realstevia.com)

Stevia, from China/Paraguay. Format – extracts, leaves. UK ingredients list: Steviol glycosides

What does it replace?	All sugar.
Potential applications	Yogurts, puddings, ice cream, lollies & sorbets, chocolate and sweet confectionery, sweet spreads and sauces, beverages, table top sweeteners.
What function does it have in the recipe?	Sweetener.
Already in products on the market in the UK, EU, or elsewhere?	Yes – UK, EU and rest of the world.
Animal or vegetable origin?	Vegetable origin.
Allergenic?	Allergen free and does not require a 'may contain' allergen label.
Is the product a 'novel food'?	No.
Classified as a sweetener?	Yes.
Are any declarations on the label required?	'Steviol glycosides' or 'E960 steviol glycosides' 'with sweetener(s)' or 'with sugar(s) and sweetener(s)'
GM status?	Non-GM
When and how is the ingredient added?	Stevia is heat, ph and light stable and therefore can be added at different stages of the manufacturing process.
Different cooking temperatures or times?	No.
Effect on a product's shelf life?	No.
Are maximum additive levels permitted per application?	Yes.
Effect on taste / consumer acceptability?	It depends on the application and the other ingredients used in the product.
Cost compared with the ingredient being replaced.	As an ingredient, it is cost effective compared to sugar.
Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.
Any ethical / environmental considerations for sourcing?	It is a more environmentally friendly crop to grow than sugar, before it is processed into an extract.

Does the manufacturing site have standard certifications such as BRC?

Yes, FSSC 22000 certification.

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## Thew Arnott & Co Ltd

Nick Newman (Sales Representative), [nicknewman@thewarnott.co.uk](mailto:nicknewman@thewarnott.co.uk)

CEROMAG is an extract of Liquorice Roots / PRC - in powder form. Please see "Annex I of Reg. (EC) No. 1334/2008 on flavourings & certain ingredients for use in and on food. The product is E-number free and would be declared as: Ammonium salt of glycyrrhizinic acid.

What does it replace? It does not replace any ingredient. CEROMAG works alongside existing ingredients to enhance flavouring.

### Potential applications

What function does it have in the recipe? CEROMAG acts as a masking agent (e.g. removes undesirable tastes. It also enhances and intensifies flavours or existing sweeteners (e.g. sugar reduction).

Already in products on the market in the UK, EU, or elsewhere? We have an existing European customer from the aroma/flavour industry. According to the customer, this product is used as a masking agent for bitter flavour in their recipe.

Animal or vegetable origin? Vegetable origin.

Allergenic? None known.

Is the product a 'novel food'? Yes: according (EC) 1334/2008 for Glycyrrhizic Acid.

Classified as a sweetener? No.

Are any declarations on the label required? No.

GM status?

When and how is the ingredient added? Solubility: Soluble in hot water and in 70% ethanol. Soluble in ammonia water and insoluble in glacial acetic acid.

Different cooking temperatures or times? Example from trials on a Fruit Jam: During the trials made, we reached the temperature of approx.100°C and there was no negative effect noticed.

Effect on a product's shelf life? Unknown.

Is maximum additive levels permitted per application? Yes, according to Regulation (EC) 1334/2008 amended version & LMIV = (EU) 1169/2011.

Effect on taste / consumer acceptability? Please see point regarding taste. Consumer acceptability is not known because it can be declared as a flavouring.

Cost compared with the ingredient being replaced. Depends on the application.

Any long-term health effects? Unknown.

Any COSHH implications for use in manufacturing /  
is PPE needed for handling or storage conditions?

Any ethical / environmental considerations for sourcing? No.

Does the manufacturing site have standard certifications such as BRC?

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## Ungerger Ltd

Dr Bimal Karmakar (Principal flavourist – Manager flavour creation and application),  
bkarmakar@ungerger.co.uk

Sweetfeel flavouring natural – Natural flavouring preparations, sourced in the UK. Format – liquid, powder. UK ingredients list: Sweet Flavouring Natural

What does it replace? Any type of sugar up to 50% in beverage and sweet products.

Potential applications Breakfast cereals, yogurts, biscuits, cakes, morning goods, ice cream, lollies, & sorbets, chocolate and sweet confectionery, sweet spreads and sauces, alcoholic and non-alcoholic beverages.

What function does it have in the recipe? It fills the gap of sweetness and mouthfeel when 50% sugar is taken out of any food products.

Already in products on the market in the UK, EU, or elsewhere? In the UK, EU, and rest of world.

Animal or vegetable origin? Vegetable origin.

Allergenic? Allergen free and does not require a 'may contain' allergen label.

Is the product a 'novel food'? No.

Classified as a sweetener? No. Natural flavouring.

Are any declarations on the label required? No.

GM status? Non-GMO.

When and how is the ingredient added? End stage of production.

Different cooking temperatures or times? No.

Effect on a product's shelf life? Unknown.

Is maximum additive levels permitted per application? Yes, up to 0.1% or more in most of the applications.

Effect on taste / consumer acceptability? Already accepted by customers for various applications.

Cost compared with the ingredient being replaced. Cost almost same or little bit higher than amount of sugar being replaced.

Any long-term health effects? No long-term health effects.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions? No.

Any ethical / environmental considerations for souring? No.

Does the manufacturing site have standard certifications such as BRC?

Yes.

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## Ajinomoto Europe – FDF member

Jessica Courtemanche-Davies (Scientific Communication EMEA),  
jessica\_courtmanche@ehq.ajinomoto.com

Advantame, produced in Japan – powder form. UK ingredients label: ‘advantame’, E969

What does it replace? Can be used to partially replace sugar and other sweeteners in a wide variety of applications.

Potential applications Beverages, yogurt, desserts, confection, table-top sweeteners, etc.

What function does it have in the recipe? Zero calories. Imparts sweet taste without the calories. Provides clean sweet taste with no off-tastes.

Already in products on the market in the UK, EU, or elsewhere? Globally available.

Animal or vegetable origin? Amino acids.

Allergenic? No.

Is the product a ‘novel food’? No.

Classified as a sweetener? Yes.

Are any declarations on the label required? No.

GM status? Advantame does not fall under the scope of regulation (EC) 1829/2003 on genetically modified food and feed as well as regulation (EC) 1830/2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms

When and how is the ingredient added? Can be added like other common ingredients in processing.

Different cooking temperatures or times? Can be used on most pasteurization and processing conditions, avoid prolonged heating.

Effect on a product’s shelf life? Stable in most food and beverage applications. Avoid prolonged heat.

Are maximum additive levels permitted per application? Yes, per Commission regulation 497/2014.

Effect on taste / consumer acceptability? Clean sweet taste, requires no taste masking. Enhances some flavours such as citrus, fruit chocolate, mint, etc.

Cost compared with the ingredient being replaced.

Any long-term health effects? No.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions? No.

Any ethical / environmental considerations for sourcing? No.

Does the manufacturing site have standard certifications such as BRC? The production site certification is : FSSC22000

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## Ajinomoto Europe – FDF member

Jessica Courtemanche-Davies (Scientific Communication EMEA),  
jessica\_courtmanche@ehq.ajinomoto.com

Aspartame, produced in Japan – powder form. UK ingredients list: ‘aspartame’ E951

What does it replace?	Replaces sugar in a wide variety of applications.
Potential applications	Beverages, yogurt, desserts, confection, table-top sweeteners, etc.
What function does it have in the recipe?	Zero calories. Imparts sweet taste without the calories. Provides clean sweet taste with no off-tastes.
Already in products on the market in the UK, EU, or elsewhere?	Globally available.
Animal or vegetable origin?	Amino acids.
Allergenic?	No.
Is the product a ‘novel food’?	No.
Classified as a sweetener?	Yes.
Are any declarations on the label required?	Requires statement ‘contains a source of phenylalanine’.
GM status?	Aspartame does not fall under the scope of regulation (EC) 1829/2003 on genetically modified food and feed as well as regulation (EC) 1830/2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms
When and how is the ingredient added?	Can be added like other common ingredients in processing.
Different cooking temperatures or times?	Can be used on most pasteurization and processing conditions, avoid prolonged heating.
Effect on a product’s shelf life?	Stable in most food and beverage applications. Avoid prolonged heat.
Are maximum additive levels permitted per application?	Yes, see Annex II of Commission Regulation 1333/2008.
Effect on taste / consumer acceptability?	Most commonly used alternative sweetener. Clean sweet taste, requires no taste masking. Enhances some flavours.
Cost compared with the ingredient being replaced.	
Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.

Any ethical / environmental considerations for sourcing?

No.

Does the manufacturing site have standard certifications such as BRC?

The production site certification is : FSSC22000

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## SweeGen

Luca Giannone (Commercial Officer), [luca.giannone@sweegen.com](mailto:luca.giannone@sweegen.com)

Bestevia Reb M 95% is a stevia based sweetener, from China, in a fine powder form. We start with extract obtained from the leaves of the stevia plant and use a proprietary enzymatic process to produce high purity Reb-M.

What does it replace? It replaces sugar or sweetener enhancers. Depending on the application it can replace between 30% to more than 70% of sugar content.

Potential applications It can be used as a sweetener in various applications, like beverages, dairy and functional foods.

What function does it have in the recipe? Bestevia is a non-nutritive sweetener that can help formulator to achieve zero-calorie mile stone for their products without compromising the taste.

Already in products on the market in the UK, EU, or elsewhere? Reb-M produced by extraction has been used in different markets for some years now. Bestevia Reb-M is currently approved in the US market (GRAS No. 667) with no objection of use in Canada. EFSA approval is under the process.

Animal or vegetable origin? Vegetable (suitable for vegan and vegetarian, also Halal and Kosher certified).

Allergenic? Non-allergenic

Is the product a 'novel food'? The product is being submitted to EFSA for approval.

Effect on a product's shelf life? The product is stable and does not affect the shelf life.

Classified as a sweetener? Yes

Are any declarations on the label required? No

GM status? Non-GMO. Project verified.

When and how is the ingredient added? For its intended use, we do not see any change or impact on existing manufacturing process for different products. It can be added to the formulation the same way that sugar is added.

Different cooking temperatures or times? No impact on cooking temperature or time to our knowledge.

Are maximum additive levels permitted per application? N/A.

Effect on taste / consumer acceptability? According to consumer study, Bestevia Reb-M has a sugar like taste and unlike other stevia compounds has significantly less bitterness and aftertaste.

Cost compared with the ingredient being replaced. Bestevia Reb-M has a current price in the range of 450\$/kg. This price will decrease in the mid-term, and in general, it can be adjusted based on required volumes.

Any long-term health effects?	No.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No, this product is food grade and not hazardous.
Any ethical / environmental considerations for sourcing?	No.
Does the manufacturing site have standard certifications such as BRC?	Yes, BRC Certified.

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Chicory root fibre - sourced from chicory roots in The Netherlands. Chicory root fibre is a dietary fibre that has sweetness and filling properties. It can be labelled as dietary fibre (inulin), FOS (fructo-oligosaccharide), chicory root fibre or extract.

What does it replace? Chicory root fibre can replace all sugars, including liquid sugars like glucose.

Potential applications Breakfast cereals, yoghurts, biscuits, cakes, morning goods, puddings, ice cream, lollies, sorbets, chocolate confectionery, sweet confectionery, sweet spreads and sauces.

What function does it have in the recipe? Gives sweetness and bulk and brings texture and mouthfeel.  
It allows blood glucose management claims like low GI.  
Next to replacing sugar it improves the metabolic properties of the end product.

Already in products on the market in the UK, EU, or elsewhere? Product is sold in UK, and over 45 countries in the world.

Animal or vegetable origin? Vegetable

Allergenic? Allergen free

Is the product a 'novel food'? No.

Effect on a product's shelf life? None.

Classified as a sweetener? It is a fibre not a sweetener.

Are any declarations on the label required? Chicory root fibre is of natural origin and is clean label.

GM status? Does not contain any GM ingredients.

When and how is the ingredient added? Used as other sugars.

Different cooking temperatures or times? No.

Are maximum additive levels permitted per application? No.

Effect on taste / consumer acceptability? Chicory root fibre is sold in many products in the world, including infant nutrition.  
Used in cereals, cereal bars, confectionery, (sweet) bakery, dairy products, etc.

Cost compared with the ingredient being replaced. Like all ingredients replacing sugar it is more costly; especially when no loss of sensory properties is demanded.

Any long-term health effects? No.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions? No.

Any ethical / environmental considerations for sourcing?

No.

Does the manufacturing site have standard certifications such as BRC?

Yes – FSSC 22000

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## Henley Bridge Ingredients Ltd – t/as HB Ingredients

Tony Mycock (MD), tony@hbingredients.co.uk

BelgoDiet is a functional sugar replacer mainly based on fibres. The composition offers the possibility of a 100% sugar replacement on a 1:1 weight basis in any sugar containing food. BelgoDiet is available in powder and syrup form. BelgoDiet tastes like sugar, is safe for diabetics, low glycaemic, low caloric and has no metallic or bitter aftertaste. Due to the unique composition only some or no R&D is needed to adapt your formulations and obtain an excellent end product.

### Ingredients list

Belgodiet - Bulking agent: polydextrose (E1200) / polydextrose \*, sweetener (isomalt), fibres (resistant dextrin, inulin), sweetener sucralose

➤ Soluble fibres from corn/maize, chicory, sweeteners (isomalt, sucralose)

What does it replace?	Sucrose 1:1 replacement.
Potential applications	Cereals, chocolate, confectionary, dairy products, ice cream and sorbet, jam and fruit spreads, table top, drinks.
What function does it have in the recipe?	Claims caloric reduction: BelgoDiet has 63% less calories compared with sugar. Fat replacing properties due to some of the fibres in BelgoDiet. Fibre: Depending on amount added can claim source or high fibre. Low glycaemic, and no added sugar - replaces all mono- and disaccharides in your recipe.
Already in products on the market in the UK, EU, or elsewhere?	Yes
Animal or vegetable origin?	Vegetable
Allergenic?	No
Is the product a 'novel food'?	No.
Effect on a product's shelf life?	No negative impact.
Classified as a sweetener?	Not a sweetener.
Are any declarations on the label required?	No.
GM status?	Non-GMO
When and how is the ingredient added?	Depends on application.
Different cooking temperatures or times?	Depends on application.
Are maximum additive levels permitted per application?	As with sucrose.
Effect on taste / consumer acceptability?	Perfectly acceptable. Used for instance to replace sucrose 1:1 in chocolate formulations.
Cost compared with the ingredient being replaced.	Usage 1:1.

Cost c. 5-6 x sucrose, but like comparing apples with pears due to the beneficial gain from higher fibre and lower calorific value etc.

Any long-term health effects?	No
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	Visual aspect: powder pH (10% in water): 4-6 Colour: cream-white Taste: sweet Odour: odourless Moisture: max 3.5% Water activity: 0.25-0.35
Any ethical / environmental considerations for souring?	No
Does the manufacturing site have standard certifications such as BRC?	FSSC 22000 certified

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## Henley Bridge Ingredients Ltd – t/as HB Ingredients

Tony Mycock (MD), tony@hbingredients.co.uk

BelgoDiet P02 is a functional fibre mix. The composition offers the possibility of reducing sugar in recipes or sugar replacement on a 1:1 weight basis. BelgoDiet P02 is available in powder and syrup form. BelgoDiet P02 is safe for diabetics, low glycaemic and low caloric. Belgodiet P02 is ideal for use with stevia or other sweeteners.

### Ingredients list

Belgodiet P02 - Bulking agent: polydextrose (E1200) / polydextrose\*, sweetener (isomalt), fibres (resistant dextrin, inulin)

➤ Soluble fibres from corn/maize, chicory, sweeteners (isomalt)

What does it replace?	Sucrose 1:1 replacement.
Potential applications	Bakery products, cereals, chocolate, confectionary, dairy products, ice cream and sorbet, jam and fruit spreads, table top, drinks.
What function does it have in the recipe?	Claims caloric reduction: BelgoDiet has 63% less calories compared with sugar. Fat replacing properties due to some of the fibres in BelgoDiet. Fibre: Depending on amount added can claim source or high fibre. Low glycaemic, and no added sugar - replaces all mono- and disaccharides in your recipe.
Already in products on the market in the UK, EU, or elsewhere?	Yes
Animal or vegetable origin?	Vegetable
Allergenic?	No
Is the product a 'novel food'?	No.
Effect on a product's shelf life?	No negative impact.
Classified as a sweetener?	Not a sweetener.
Are any declarations on the label required?	No.
GM status?	Non -GMO
When and how is the ingredient added?	Depends on application.
Different cooking temperatures or times?	Depends on application.
Are maximum additive levels permitted per application?	As with sucrose.
Effect on taste / consumer acceptability?	Perfectly acceptable. Used for instance to replace sucrose 1:1 in chocolate formulations.
Cost compared with the ingredient being replaced.	Usage 1:1. Cost c. 5-6 x sucrose, but like comparing apples with pears due to the beneficial gain from higher fibre and lower calorific value etc.

Any long-term health effects?	No
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	Visual aspect: powder pH (10% in water): 4-6 Colour: cream-white Taste: sweet Odour: odourless Moisture: max 3.5% Water activity: 0.25-0.35
Any ethical / environmental considerations for sourcing?	No
Does the manufacturing site have standard certifications such as BRC?	FSSC 22000 certified

## Caldic UK Ltd

Rebecca Norris-Small (Business Development Manager - Ingredients), r.norris-small@caldic.com

Chicory fibre - liquid and powder. Chicory is grown in the North of France and Belgium. Manufactured in Belgium by Cosucra Groupe. UK ingredients label - 'chicory fibre'.

What does it replace?	All sugar.
Potential applications	All applications.
What function does it have in the recipe?	Bulk sugar replacer. Replaces the functionality of sugar. Calorie value 2 kcal/kg. Reduced glycaemic response claim can also be applicable.
Already in products on the market in the UK, EU, or elsewhere?	Yes in UK and EU.
Animal or vegetable origin?	Vegetable origin
Allergenic?	Non-allergenic. Does not need 'may contain' warning.
Is the product a 'novel food'?	No.
Effect on a product's shelf life?	Possible slight reduction in shelf-life in some applications - needs to be assessed on a case by case basis.
Classified as a sweetener?	It is a fibre not a sweetener.
Are any declarations on the label required?	No. Perceived as a clean-label ingredient. Contributes to fibre claim.
GM status?	Non-GM
When and how is the ingredient added?	Either as powder or liquid as per original process.
Different cooking temperatures or times?	Need to be assessed on case to case basis in different applications.
Are maximum additive levels permitted per application?	No.
Effect on taste / consumer acceptability?	Less sweetness than sugar. Accepted in current market products.
Cost compared with the ingredient being replaced.	Dependent on grade used and price of sugar. Used on a 1:1 replacement basis. Cost increase expected.
Any long-term health effects?	No negative effects. Improved glycaemic response. Benefits on digestive health but cannot be claimed.
Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?	No.
Any ethical / environmental considerations for sourcing?	No.
Does the manufacturing site have standard certifications such as BRC?	FSSC 22000

SAV-R-SWEET, is a baker's yeast extract in powder form, can be labelled as a natural flavouring.

What does it replace? Ohly SAV-R-SWEET is a clean tasting, natural solution that masks the typical off-taste of Stevia sweeteners and restores the naturalness of your product. It can be used anywhere, where stevia is used.

Potential applications Yogurts, puddings, ice cream, lollies, sorbets, sweet spreads and sauces (e.g. chocolate spread, peanut butter, dessert sauces), beverages.

What function does it have in the recipe? Masks metallic and bitter off-notes of steviol glycosides, enhances fruit flavours and restores freshness.

Already in products on the market in the UK, EU, or elsewhere? Not yet on the market.

Animal or vegetable origin? Vegetable origin.

Allergenic? Allergen free according to EU regulations.

Is the product a 'novel food'? No.

Effect on a product's shelf life? Ohly SAV-R-SWEET has no influence on the products shelf life.

Classified as a sweetener? No.

Are any declarations on the label required? No.

GM status? No.

When and how is the ingredient added? It can be used anywhere, where stevia is used. Generally, it is added while Stevia is added to the process.

Different cooking temperatures or times? No.

Effect on a product's shelf life? Ohly SAV-R-SWEET has no influence on the products shelf life.

Are maximum additive levels permitted per application? No, but recommended levels

Effect on taste / consumer acceptability? Ohly SAV-R-SWEET masks metallic and bitter off-notes of steviol glycosides, enhances fruit flavours and restores freshness.

Cost compared with the ingredient being replaced. Depending on the addition level of steviol glycosides and the steviol glycosides variant the addition level of Ohly SAV-R-SWEET will vary.

Any long-term health effects? No.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions? No.

Any ethical / environmental considerations for sourcing? No.

Does the manufacturing site have standard certifications such as BRC? Yes.

## SWEETHOUSE GmbH & Co KG

Volker Zurowietz (Managing Director), vz@sweethouse-global.com

Qorus Dolce Sweetening Compounds. Patented Sweetener Systems available in Classic (Combinations of AcesulfamK and Sucralose and natural Flavours) or Natural (based on Stevia plus natural Flavours). Format is Powder. Country of origin is Germany.

UK ingredients label:

Classic: AcesulfamK, Sucralose, natural flavour.

Natural: Steviol glycosides, natural flavour.

What does it replace?

Either partial sugar replacement or full sugar replacement in multiple application.

Potential applications

Beverages, dairy, sauces, chewing gum, hard boiled candies, compressed tablets, ice cream and more.

What function does it have in the recipe?

Keeping the sugar taste.

Already in products on the market in the UK, EU, or elsewhere?

UK, Ireland, Austria Germany, Abu Dhabi, Indonesia, Philippines, Netherlands, Finland, more to come.

Animal or vegetable origin?

Vegetable origin, or chemical components in Classic. Natural comes from Stevia.

Allergenic?

Non-allergen.

Is the product a 'novel food'?

Not novel food - just the limits on sweeteners in EU law.

Effect on a product's shelf life?

Prolonged shelf life (compared with Aspartame containing recipes).

Classified as a sweetener?

Are any declarations on the label required?

GM status?

When and how is the ingredient added?

Simply adding in recipe. Sometimes pre-dissolving in water.

Different cooking temperatures or times?

Flexible.

Is maximum additive levels permitted per application?

According to the EU Sweetener Regulation.

Effect on taste / consumer acceptability?

Sugar like taste. This is the benefit of our patented technology.

Cost compared with the ingredient being replaced.

Less than sugar.

Any long-term health effects?

Potentially with the natural version based on Stevia.

Any COSHH implications for use in manufacturing / is PPE needed for handling or storage conditions?

No issue.

Any ethical / environmental considerations for sourcing?

No.

Does the manufacturing site have standard certifications such as BRC?