



Polyol Sweeteners

Sugar-like taste and texture with lower calories

As reducing sugar consumption has become a global concern, consumers are actively seeking out foods and beverages with less sugars — but few are willing to give up the satisfaction of sweetness.

Polyols — also known as sugar alcohols — can be an excellent solution. Polyols are obtained by hydrogenation of sugars, derived from corn or wheat starch (except for isomalt which is derived from sugar cane or beet). These versatile sweeteners offer the potential for great-tasting reduced-sugars and no added sugars products, while contributing important sensory and functional benefits.

Guilt-free indulgence

- **Ideal for reducing sugars and calories** — Polyols (except for erythritol which has 0 kcal/g) hold an energy value of 2.4 kcal/g, whereas sucrose and full-calorie sweeteners have an energy value of 4 kcal/g on dry matter.
- **Sugar-like** — Polyols bring bulk, and can help to bring back lost texture and mouthfeel when reducing sugars. They are often used in combination with high-intensity sweeteners as the clean sugar-like taste helps to mask off-flavors.
- **Support oral health** — Polyols are non-cariogenic and so do not contribute to caries or tooth decay.
- **Reduced glycemic index** — Polyols do not raise blood glucose or insulin levels.
- **Excellent processing stability** — Withstanding severe acid and heat conditions during processing.



SUGAR
REDUCTION



NON-CARIOGENIC



SUSTAINABLY
SOURCED
AVAILABILITY*

**Except for isomalt which is derived from cane or beet.*

CARGILL PRODUCTS

	Characteristics	Functional Benefits
IsoMaltidex™ Isomalt Powder & Syrups	<ul style="list-style-type: none"> Mid-calorie (2.4 kcal/g) Mild relative sweetness (half versus sucrose) Very low hygroscopicity, stabilizing end products Low solubility 	<ul style="list-style-type: none"> Improves flavor release Adds smoothness and body Reduced stickiness, unique for use in unwrapped candy Maintains crunchiness, prolongs shelf life Cost optimization
Maltidex® Maltitol Syrup Crystalline	<ul style="list-style-type: none"> Mid-calorie (2.4 kcal/g) Very similar to sucrose in molecular weight and crystalline structure High purity syrups offer high sweetness and lower viscosity Lower purity syrups offer lower sweetness and higher viscosity Good humectancy & crystallization control 	<ul style="list-style-type: none"> Easy 1:1 sugar substitution, with little to no process adaptations Clean, pleasant taste Powder form adds crunch to coatings Keeps products soft and moist over extended shelf life Boosts fruity flavors
Mannidex™ Mannitol	<ul style="list-style-type: none"> Mid-calorie (2.4 kcal/g) Mild sweetness (relative sweetness of 60 versus sucrose) Very low solubility Very low hygroscopicity, stabilizing end products Cooling effect 	<ul style="list-style-type: none"> Clean, cool and refreshing taste Reduces stickiness in candy Mainly used in chewing gum coating and as an anti-caking agent
Sorbidex Sorbitol Syrup Aqueous Solution Powder	<ul style="list-style-type: none"> Mid-calorie (2.4 kcal/g) Milder sweetness (relative sweetness of 60 versus sucrose) Medium cooling effect in crystalline form Good humectancy High solubility 	<ul style="list-style-type: none"> Pleasant and refreshing taste Balances and stabilizes plasticity and mouthfeel Keeps products soft and moist over extended shelf life Adds body and smooth texture Cost-effective
Zerose® Erythritol	<ul style="list-style-type: none"> Zero-calorie sweetener, obtained via fermentation Strong cooling effect* High relative sweetness Low hygroscopicity, stabilizing end products High speed of crystallization 	<ul style="list-style-type: none"> Clean, cool taste* Adds smoothness and body Synergistic with high-intensity sweeteners Masks off-flavors Proven to significantly reduce caries and dental plaque versus other polyols**

*In crystalline product **Clinical Study: The Caries Preventative Effect of Erythritol, Xylitol and Sorbitol

Applications



Bakery



Beverages*



Confectionery



Dairy &
Ice Cream



Fruit
Preparations



Personal Care



Pharmaceutical

*Only erythritol

Learn more: cargill.com/food-bev/emea/sweeteners/polyols

*Polyols are permitted in most energy reduced foods or foods with no added sugars under “quantum satis” conditions.

Foods with over 10% polyol content must carry a label “Excessive consumption may cause laxative effects” (EU Reg. 1333/2008 on food additives)

‘Food with no added sugars’ means a food without the following:

(i) any added monosaccharides or disaccharides;

(ii) any added food containing monosaccharides or disaccharides which is used for its sweetening properties.

‘Energy-reduced food’ shall mean a food with an energy value reduced by at least 30 % compared with the original food or a similar product.

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