



INGREDIENT OVERVIEW
NutraSweet® Applications

NutraSweet® brand sweetener, generically known as aspartame, is a high-potency sweetener manufactured and marketed by The NutraSweet Company. It is available in several forms: powder, granular, liquid, and blended with other commonly used food ingredients.

NutraSweet® brand sweetener consistently meets or exceeds Food Chemical Codex (current edition) and USP/NF Standards for aspartame. The foundation for the high quality of NutraSweet® brand sweetener lies in the many years of experience that The NutraSweet Company has in aspartame production. With this experience come technical expertise and ample production capacity to ensure customers a steady supply of high-quality product at competitive prices.

The NutraSweet Company is committed to being a leader in the sweetener industry.

NutraSweet® brand sweetener (aspartame) can be used in a multitude of food and beverage systems. Aspartame has been approved worldwide for food, beverage, and/or tabletop sweetener use in approximately 100 countries. In 1996 the U.S. Food and Drug Administration approved aspartame as a general purpose sweetener that can be used in all foods and beverages, including products such as syrups, salad dressings and snack foods. (See Table 1.)

The only product category with a defined maximum use level is baked goods, at 0.5% aspartame content prior to baking.

TABLE 1: PRODUCT APPLICATIONS

| | | |
|--|--|--|
| <p>Bakery Products Finished cakes, cookies, muffins, pies and pie crusts, brownies and cheesecake Frostings, icing, glazes, and Toppings soothers Sandwich crème and cookie filling Baking mixes Fruit pie and bakery fillings and Toppings</p> <p>Beverages Aseptic drinks Carbonated drinks Still/RTD beverages Coffee – instant and syrups Fruit juices and drinks Malt beverages Teas Alcoholic beverages (< 7% alcohol)</p> <p>Cereals Ready-to-eat Hot</p> | <p>Confections Breath mints and hard candies Chewing gum Nougat, caramel and toffee Gelled candies and fruit chews Chocolate coatings and toppings</p> <p>Dairy Ice cream and frozen yogurts Frozen desserts and novelties Milk and milk modifiers Yogurts - Beverages and powder mixes Shakes</p> <p>Dry Mixes Cocoa Desserts – gelatin, puddings, toppings Powdered soft drinks</p> <p>Fruit-based products Juice and drinks Spreads Pie and bakery fillings Toppings and syrups</p> | <p>Ready-to-eat Desserts Refrigerated gelatins and puddings Baked goods</p> <p>OTC Pharmaceuticals Cough lozenges and throat Chewable tablets, multi-vitamins Laxatives and fiber drinks Dry cough mixes</p> <p>Salad Dressings</p> <p>Sauces Barbecue Other</p> <p>Snack Foods Granola bars, rice cakes</p> <p>Syrups Chocolate, caramel, fruit and table</p> <p>Table-top Packets Bulk Tablets</p> |
|--|--|--|

NutraSweet® brand sweetener is found in a variety of products that are manufactured in unit operations and processes common to the food and beverage industry. NutraSweet withstands the heat processing required in well-designed batch, High Temperature Short Time (HTST), and Ultra High Temperature (UHT) methods. Consult with your Technical Service Representative for further information and guidelines.

The manufacture of acceptable sugar-modified products frequently requires the use of bulking

agents and other functional ingredients. Choice of appropriate ingredients will ensure successful products with the texture, appearance, moisture, and caloric reduction desired. Processing and formulation guidelines for specific applications using NutraSweet are available from The NutraSweet Company.

The potency of NutraSweet® brand sweetener allows optimum sweetness with low use levels. Additionally, it can reduce calories and extend flavors in many applications. (See Table 2.)

TABLE 2: TYPICAL USE LEVELS AND ATTRIBUTES OF NUTRASWEET® BRAND SWEETENER

| Product* | Sugar-containing Ingredients: Mono- & Disaccharides (% as formulated) | NutraSweet brand sweetener (% as formulated) | Attributes of NutraSweet brand sweetener | | |
|---|---|--|--|-------------------|------------------|
| | | | Clean, sweet taste | Caloric Reduction | Flavor Extension |
| Carbonated Soft Drink | 9 - 12 | 0.045 - 0.070 | ✓ | ✓ | |
| Still/RTD Beverages | 8 - 12 | 0.04 - 0.06 | ✓ | ✓ | ✓ |
| Powdered Soft Drink | 90 - 95 | 5 - 12 | ✓ | ✓ | ✓ |
| Frozen Desserts | 14 - 22 | 0.065 - 0.10 | ✓ | ✓ | |
| Ice Cream | 14 - 22 | 0.065 - 0.10 | ✓ | ✓ | |
| Yogurt - Plain & Fruited/Flavored | 3 - 5 6 - 12 | 0.015 - 0.030 0.055 - 0.080 | ✓ ✓ | ✓ ✓ | ✓ ✓ |
| Fruit/Flavor Yogurt Preparations | 6 - 13 | 0.35 - 0.50 | ✓ | ✓ | ✓ |
| Chewing Gum/Bubble Gum | 50 - 60 | 0.1 - 0.3 | ✓ | ✓ | ✓ |
| Confections | 54 - 98 | 0.10 - 0.25 | ✓ | ✓ | ✓ |
| Jams/Jellies/Fruit Spreads/ Toppings | 80 - 90 | 0.16 - 0.24 | ✓ | ✓ | ✓ |
| OTC Tablets | 60 - 80 | 0.24 - 1.20 | ✓ | ✓ | ✓ |
| Fiber Laxatives | 45 - 55 | 0.35 - 0.45 | ✓ | ✓ | |
| Cough Lozenges | 97 - 98 | 0.2 - 0.3 | ✓ | ✓ | |
| Powdered Dessert Mixes | 50 - 90 | 2.0 - 4.0 | ✓ | ✓ | ✓ |
| Refrigerated Chocolate Milk | 5 - 7 | 0.035 - 0.050 | ✓ | ✓ | |
| Baked Goods | 10 - 25 | 0.075 - 0.350 | ✓ | ✓ | |
| Salad Dressings | 3 - 25 | 0.04 - 0.07 | ✓ | ✓ | |
| Sauces | 5 - 33 | 0.05 - 0.07 | ✓ | ✓ | |

* NutraSweet may have potential flavor enhancement in some of these categories.
Caloric reduction depends on final product formulation. It is best to consult a regulatory or legal consultant to determine the appropriate claims and final labeling requirements for your products.

MORE INFORMATION IS AVAILABLE TO YOU

This bulletin is intended to be general in nature. We are eager to work with you in the development of new products and processes. For additional information about our products, please call

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