



NutraSweet® Blends in Carbonated Soft Drinks

ADVANTAGES OF NUTRASWEET® & SUGAR BLENDS IN CARBONATED SOFT DRINKS

Traditionally, sucrose and high fructose corn syrup have been the primary sweeteners used in carbonated soft drinks. NutraSweet® brand sweetener has been the sweetener of choice for diet carbonated soft drinks since its introduction in the early 1980s. Replacing part of the sugar in traditional beverages with NutraSweet provides calorie reduction^s with potential cost savings and appropriate sweetness and flavor over time. A twelve-month in-house sensory study has demonstrated that an orange flavored carbonated soft drink made with 25:75 NutraSweet:HFCS 42 blend maintains acceptable sweetness and flavor. (See Figure 1.)

NutraSweet® brand sweetener, generically known as aspartame, is a high-potency sweetener manufactured and marketed by The NutraSweet Company. Aspartame is the methyl ester of the dipeptide L-aspartyl-L-phenylalanine. Its components are identical to those that occur naturally in many common foods.

NutraSweet consistently meets or exceeds Food Chemical Codex (current edition-) and USP/NF Standards for aspartame. The foundation for the high quality of NutraSweet 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. Ongoing efforts of the R&D staff focus on providing product formulation guidance to food and beverage manufacturers.

WORKING WITH NUTRASWEET® & SUGAR BLENDS IN CARBONATED SOFT DRINKS

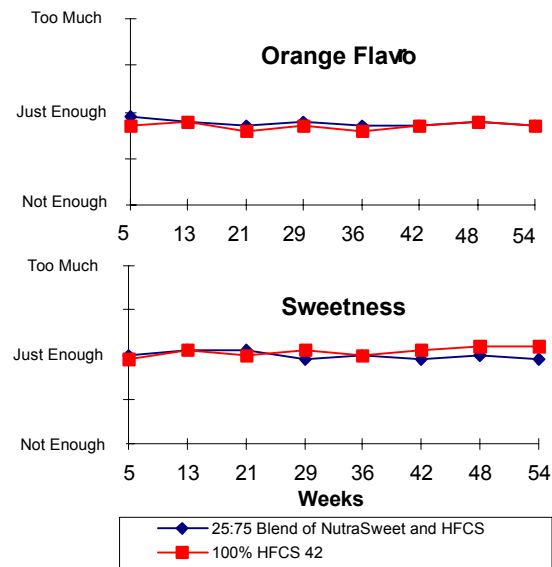
NutraSweet can be used in standard manufacturing processes. It is available in several forms: powder, granular, liquid, and blended with other commonly used food ingredients. Traditionally, NutraSweet® Granular™, with a particle size of 20 to 80 U.S. standard mesh, has been used in carbonated

soft drink manufacture. It is readily dispersible in the liquid syrup.

Generally, all NutraSweet ingredients dissolve more quickly in acidic conditions and at temperatures approaching 70°F (21°C).

FIGURE 1: SHELF LIFE STUDY OF ORANGE FLAVORED CARBONATED SOFT DRINKS WITH 100% HFCS & 25:75 NUTRASWEET®:HFCS BLEND

As a dry ingredient, the stability of NutraSweet is excellent. Temperature, pH, and storage time all affect the stability of NutraSweet when it is used in carbonated soft drinks. With proper handling and storage, NutraSweet as part of a sweetener blend provides sweetness over the normal shelf-life for carbonated soft drinks. (See Figure 1.)



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^s It is best to consult with a regulatory or legal consultant to determine the appropriate claims and final labeling requirements for your products.

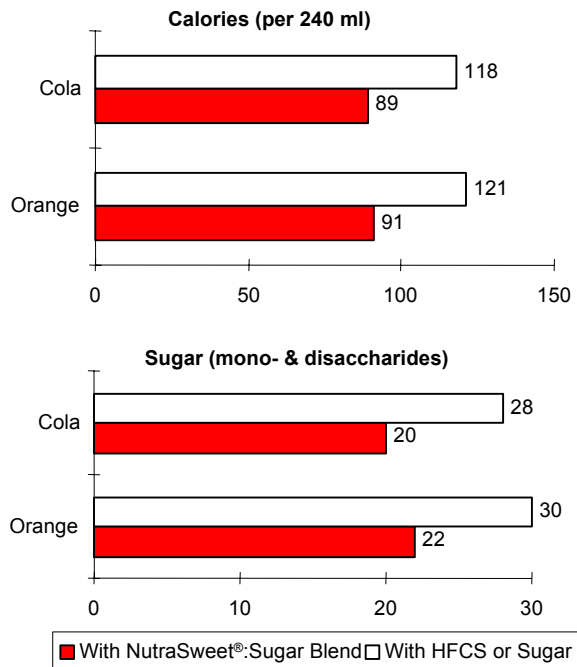
Various ratios of NutraSweet:sugar blends can be used to sweeten CSD products. At low concentrations, NutraSweet is perceived as sweeter. Therefore, when small quantities are used in a blend, the sweetness level of the finished product is also perceived as greater than expected. The actual amount of NutraSweet needed to replace the sugar in a formula depends on the desired sweetness, the type of finished product, and the desired level of sugar replacement.

NUTRITION/HEALTH ASPECTS

Carbonated soft drinks formulated with blends of NutraSweet® brand sweetener and HFCS or sucrose may qualify for reduced sugar, reduced calorie, and light labeling claims, depending on product formulation.

Individuals with diabetes or with weight control problems generally find the use of products made with NutraSweet a useful adjunct to their basic diet. However, carbonated soft drinks formulated with HFCS or sucrose blends will contribute additional sugar and calories that must be accounted for in an individual's total daily diet. Nutrition labeling requirements for finished products provide information that can be helpful to consumers.

FIGURE 2: NUTRITIONAL COMPARISON OF CARBONATED SOFT DRINKS WITH 100% SUGAR AND WITH 25:75 NUTRASWEET®:SUGAR BLEND



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 **1-800-323-5321 (USA/Canada)**



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