



PRODUCT FORMULATION

NutraSweet® in Carbonated Soft Drinks

ADVANTAGES OF NUTRASWEET® & CARBOHYDRATE SWEETENER BLENDS IN CARBONATED SOFT DRINKS

- ?? Offers similar taste to full-sugar beverages
- ?? Possible nutrient claims[§] include light, reduced sugar, and reduced calorie
- ?? Delivers sweetness equivalency at a cost that is competitive with 100% sugar and corn syrup, without sacrificing flavor
- ?? May enhance and extend flavor
- ?? Works well in most carbonated soft drink processing conditions

WORKING WITH NUTRASWEET® & CARBOHYDRATE SWEETENER BLENDS IN CARBONATED SOFT DRINKS

- ?? NutraSweet® Granular™ disperses with less dusting in liquid systems
- ?? Dissolves most readily in slightly acidified solutions
- ?? Dissolves best at temperatures approaching 70°F (21°C). Sweetness loss is increased as temperature increases, so care should be taken when holding syrups with NutraSweet.
- ?? In order to maintain maximum sweetness, syrup solutions containing NutraSweet should not be held for more than 8 hours
- ?? Use levels of NutraSweet in blends: 0.008 - 0.014% (80 - 140 ppm) in finished beverages
- ?? In finished beverages, stability of NutraSweet is suitable for normal distribution and turnover

[§] It is best to consult with a regulatory or legal consultant to determine the appropriate claims and final labeling requirements for your product.

REDUCED SUGAR/REDUCED CALORIE[§] COLA SYRUP MADE WITH 25:75 BLEND OF NUTRASWEET® AND HFCS

Ingredient	%
Treated alkaline-free water	42.37
Sodium benzoate	0.10
HFCS 55	55.79
Phosphoric acid, caffeine solution	0.27
NutraSweet® Granular™	0.03
Cola flavor	<u>1.44</u>
	100.00%
Dilution 1 + 5	
pH 2.9 ± 0.03	
Carbonation 3.75 ± 0.25	
Brix 8.5 ± 0.2	
Nutrition Information	
per 8 fl.oz. serving (finished product)	
Calories	90
Carbohydrates (g)	20.7
Sugar (g)	19.9
BV55	

REDUCED SUGAR/REDUCED CALORIE[§] ORANGE SYRUP MADE WITH 25:75 BLEND OF NUTRASWEET® AND CARBOHYDRATE SWEETENER

Ingredient	%
Treated alkaline-free water	51.42
Sodium benzoate	0.20
Sucrose	45.99
Anhydrous citric acid	0.62
NutraSweet® brand sweetener	0.05
Sodium citrate	0.05
Orange flavor	0.68
Yellow #6 (1% solution)	<u>0.99</u>
	100.00%
Dilution 1 + 5	
pH 3.25 ± 0.03	
Carbonation 2.3 ± 0.1	
Brix 9 ± 0.2	
Nutrition Information	
per 8 fl.oz. serving (finished product)	
Calories	90
Carbohydrates (g)	22.7
Sugar (g)	22.5

**PROCESS DESCRIPTION FOR CARBONATED
SOFT DRINKS WITH BLENDS OF
NUTRASWEET® AND CARBOHYDRATE
SWEETENER**

1. Add treated water to syrup tank, reserving sufficient water for rinsing containers.
2. Completely dissolve sodium benzoate prior to addition of other ingredients.
3. Add sugar and mix well.
4. Add acid, acid solution, or acid/caffeine blend. Rinse container. Allow to disperse completely.
5. Slowly add NutraSweet with gentle mixing. Rinse container and allow sufficient time for NutraSweet to dissolve completely (approximately 10 to 30 minutes, depending on temperature and pH of solution).

Alternate Method:

If a small blending tank is available,

- ?? Add treated water to blending tank.
 - ?? Dissolve enough of the food acid in the water to achieve a pH of 3.0.
 - ?? Add NutraSweet to acidified water. Up to 3% of the NutraSweet can dissolve at pH 3.0 and approximately 77°F (25°C). (A 1% solution will dissolve in unacidified water at approximately 68°F / 20°C.)
 - ?? Add contents of mixing tank to syrup tank and continue per normal plant procedure.
6. Add flavor and color. Rinse container and mix until completely blended.
 7. Do appropriate quality control tests on syrup.

Combine syrup and treated water in an appropriate ratio. Carbonate to specified volume and fill.

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 our Food Technical Services Department at **1-800-323-5321 (USA/Canada)**

The NutraSweet Company

P.O. Box 2986
Chicago, IL 60654

**Visit our website at
www.nutrasweet.com**



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