



PRODUCT FORMULATION

NutraSweet® in Gelled Candies and Fruit Chews

ADVANTAGES OF NUTRASWEET® IN GELLED CANDIES & FRUIT CHEWS

- Adds clean, sweet taste to sugar-free and no sugar added confections
- Provides sweetness at low concentrations
- Enhances flavors in hard candies
- Delivers sweetness equivalency at a cost competitive with sucrose and corn syrup
- Is non-cariogenic
- Depending on formulation, sugar free and no sugar added claims are possible[§]
- Easy to use in batch, continuous, and deposited manufacturing processes
- Excellent stability in hard candy, very low moisture systems

WORKING WITH NUTRASWEET® IN GELLED CANDIES & FRUIT CHEWS

- Recommended use levels: 0.10 - 0.25%
- For best results, add NutraSweet with other flavoring ingredients
- In soft candy, proper cooling and handling results in maximum retention of NutraSweet
- In all confections, stability of NutraSweet is suitable for normal turnover
- In fully continuous systems, NutraSweet can be added at 260° to 280°F (127° to 138°C)

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

[‡] Cook and temperature times will vary according to the type of maltitol syrup used.

SUGAR-FREE[§] GELATIN-BASED GELLED CANDIES MADE WITH NUTRASWEET®

| Ingredient | % |
|---------------------------------------------------------------------------|--------------------|
| Maltitol syrup, DP55 | 68.40 |
| Water, cold | 18.77 |
| Gelatin, 225 bloom, type B | 8.50 |
| Citric acid solution, 50% | 1.21 |
| Sorbitol powder | 3.00 |
| NutraSweet® brand sweetener | 0.08 |
| Color | 0.04 - 0.12 |
| Flavor | <u>0.02 - 0.11</u> |
| | 100.00% |
| Nutrition Information per 40g serving (finished product) | |
| Calories | 100 |
| Carbohydrates (g) | 27.8 |
| Sugar (g) | 0.0 |
| Sugar Alcohols (g) | 27.7 |
| CN29 | |

PROCESS DESCRIPTION[‡] FOR GELATIN- BASED GELLED CANDIES WITH NUTRASWEET®

Open Kettle Cooker

1. Disperse the gelatin in cold water and heat to 140°F (60°C). Hold until gelatin is fully hydrated and the solution deaerates.
2. Heat the maltitol syrup to 242°F (117°C), or 88% solids, and cool to 212°F (100°C).
3. Mix the maltitol syrup and gelatin/water mixture from Step 1 and hold at 160°F (71°C).
4. Premix NutraSweet with citric acid solution and add to mixture in Step 3.
5. Color and flavor to suit. Then deposit in 90°-95°F (32°-35°C) dry molding starch. Let stand for two hours, then store at 105°F (41°C) for up to 40 hours.
6. Demold and dust off the starch. Polish with a coat of 0.2-0.4% of a blend containing 98% vegetable oil and 2% beeswax, which has been melted together thoroughly.

Alternate Processing Steps for Static Cooker

2. Preheat the maltitol syrup to 140°F (60°C). Mix in gelatin solution after preheat.
3. Pass mix through static cooker to 232°F (112°C) with 80% solids as target.

SUGAR FREE[§] STARCH-BASED GELLED CANDIES MADE WITH NUTRASWEET[®]

| Ingredient | % |
|---------------------------------------------------------------------|-------------|
| Maltitol syrup, DP55 | 81.92 |
| Water | 6.84 |
| Starch, thin boiling | 9.77 |
| Citric acid | 1.12 |
| Color | 0.14 |
| NutraSweet[®] brand sweetener | 0.12 |
| Flavor | <u>0.09</u> |
| | 100.00% |
| Nutrition Information per 40g serving (finished product) | |
| Calories | 100.0 |
| Carbohydrates (g) | 31.3 |
| Sugar (g) | 0.0 |
| Sugar Alcohols (g) | 27.4 |
| | CN35 |

PROCESS DESCRIPTION[†] FOR STARCH-BASED CANDIES WITH NUTRASWEET[®]

1. Disperse the starch in water and add maltitol syrup. Adjust the solids to 79% and preheat to 180°F (82°C).
2. Pump the slurry through a jet cooker to gelatinize the starch (approximately 280°F (138°C).
3. Add the NutraSweet, color, and acid just prior to placing in the depositor.
4. Deposit the candy into starch molds and place in a dry room at 125°F (52°C) for up to 36 hours.
5. Demold and sorbitol sand before packing.

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)**



The NutraSweet Company
P.O. Box 2986
Chicago, IL 60654

Visit our website at
www.nutrasweet.com

SUGAR-FREE[§] FRUIT CHEWS MADE WITH NUTRASWEET[®]

| Ingredient | % |
|---------------------------------------------------------------------|-------------|
| Maltitol syrup | 89.90 |
| Coconut oil | 5.39 |
| Whipping agent (soy protein) | 0.90 |
| Water | 1.80 |
| Monoglycerides | 0.60 |
| Citric acid | 1.04 |
| NutraSweet[®] brand sweetener | 0.21 |
| Flavor | 0.09 |
| Color | <u>0.06</u> |
| | 100.00% |
| Nutrition Information per 40g serving (finished product) | |
| Calories | 130 |
| Carbohydrates (g) | 33.0 |
| Sugar (g) | 0.0 |
| Sugar Alcohols (g) | 32.9 |
| | CN34 |

PROCESS DESCRIPTION[†] FOR TOFFEE WITH NUTRASWEET[®]

1. Prepare pre- whip by mixing 1 part whipping agent to 1 part maltitol syrup and 2 parts water. Whip with a whisk and hold for addition in Step 3.
2. Cook maltitol syrup, coconut oil, emulsifier, and color to the desired texture. Final cook temperature will vary according to the maltitol syrup used. (Ranges: 260°-290°F / 127°-143°C).
3. When desired temperature is reached, add the pre- whip. Cool product to 110°F (43°C).
4. Add flavor, acid, and NutraSweet.
5. Pull for 10 minutes, cut, and package.

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