TomorrowSweet 1.9

Sucrose-similar sweet protein blend

OVERVIEW

TomorrowSweet 1.9 is a proprietary high-intensity sweet protein blended with natural flavors, for sugar replacement in food and beverage applications. At approximately 80× the sweetness of sucrose, it delivers the taste of sugar – and measurably lifts the consumer-facing nutritional rating of finished applications (see Application Impact, page 3).

80×	90%	0cal
SUCROSE SWEETNESS	**SUCROSE-SIMILAR**	**AT USE LEVEL**
Approx. potency	*Onset & finish*	*Non-caloric*

SENSORY PROFILE

A natural taste curve approximately 90% similar to sucrose across onset and finish:

- **Fast onset** – sweetness builds at the same pace as sugar
- **Clean finish** – minimal lingering, no aftertaste typical of high-intensity sweeteners
- Non-caloric at use levels

STABILITY

Our custom brazzein protein backbone is built for food and beverage processing:

- **Heat stable** – sweetness holds through HTST pasteurization (72°C / 15 s), batch pasteurization (63°C / 30 min), and hot-fill applications
- **pH stable** – functional across pH 2.5–8, from acidic beverages through neutral applications

APPLICATIONS

Sugar replacement in functional beverages, better-for-you (BFY) candy, protein bars, and other low-calorie food and beverage formulations. The sucrose-similar taste profile enables a clean swap from caloric sweeteners (sucrose, HFCS) or existing high-intensity sweeteners (stevia, monk fruit) – without off-notes or reformulation overhead.

COMPOSITION & PHYSICAL

Ingredient statement	**Brazzein (sweet protein), Natural Flavors**
Appearance	**Off-white powder**
Sweetness potency	**~80× sucrose**
Reference use rate	**Soda (12 oz can): 375 mg replaces 30 g sucrose**
Country of origin	**United States of America**
Packaging	**Sealed package**
Shelf life	**24 months**
Storage	**Cool, dry, ambient; away from heat, sunlight, moisture**

REGULATORY & CERTIFICATIONS

- **FDA GRAS** – all ingredients are Generally Recognized as Safe per U.S. FDA standards
- **Natural** – qualifies for natural label claims under FDA enforcement discretion
- **Non-GMO** – no detectable modified genetic material; not a bioengineered food under the USDA standard (7 CFR Part 66)
- **Gluten-Free** – meets the FDA standard for gluten-free labeling (<20 ppm, 21 CFR 101.91)
- **Kosher-suitable**
- **Halal-suitable**
- **FALCPA** – contains no major allergens; manufactured on shared equipment that also processes products containing milk, tree nuts, and soy
- **21 CFR Compliance** – produced in compliance with the Federal Food, Drug, and Cosmetic Act and FSMA
- **SQF Certified Facility** – Certificate #53767, rated Excellent; FDA-registered co-packing site under cGMP
- **Allergen Verification** – Aller Snap Protein residual testing performed for cleaning verification prior to each production run
- **Market Approval** – cleared for use in the United States

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Application Compatibility

Where TomorrowSweet 1.9 performs

Sugar load and reformulation requirements vary across CPG categories. TomorrowSweet 1.9 delivers a sucrose-similar taste curve – fast onset, clean finish – across the major sugar-replacement applications. The categories below indicate target use cases and starting use rates for formulation development. Final use rate should be validated against your sensory benchmark.

PAIRS WITH TOMORROWSWEET LINGER 1.0

For functional applications where bitter ingredients (caffeine, plant protein, polyphenols) appear on the back palate, stack TomorrowSweet 1.9 (front-end sucrose-similar sweetness) with TomorrowSweet Linger 1.0 (back-end bitter coverage). The two products sit on opposite ends of the taste curve and combine cleanly – recommended for high-caffeine, plant-protein, and polyphenol-rich functional beverages where a single sweetener can't do both jobs.

CATEGORY 01

Carbonated Soft Drinks

Sodas, sparkling functionals, mixers

SUGAR LOAD
30–45 g per 12 oz

HOW 1.9 WORKS
Clean 1:1 swap for sucrose or HFCS sweetness; sucrose-similar taste curve

STARTING USE RATE
375–560 mg per 12 oz

EXAMPLE APPLICATIONS
Cola, citrus sodas, prebiotic sodas, sparkling functionals, tonic mixers

CATEGORY 02

Still Beverages

Juices, energy drinks, sports drinks, RTDs

SUGAR LOAD
15–35 g per 12 oz

HOW 1.9 WORKS
Replaces sucrose's sweetness contribution; compatible with a range of functional ingredients including vitamins, electrolytes, and caffeine

STARTING USE RATE
190–440 mg per 12 oz

EXAMPLE APPLICATIONS
Juice blends, energy drinks, sports drinks, RTD teas and coffees, plant-based dairy

CATEGORY 03

BFY Confections

Chocolate, hard candy, fruit chews

SUGAR LOAD
10–25 g per serving

HOW 1.9 WORKS
Replaces sucrose in syrup and coating phases; pairs cleanly with cocoa and fruit purees

STARTING USE RATE
125–310 mg per serving

EXAMPLE APPLICATIONS
Chocolate bars, hard candies, fruit chews, cocoa-based snacks, BFY caramels

CATEGORY 04

Protein Bars & Snacks

Bars, granola, BFY cookies, baked snacks

SUGAR LOAD
8–18 g per serving

HOW 1.9 WORKS
Delivers sweetness through the chewing experience; pairs with a range of soluble fibers and bulking agents for mass and texture

STARTING USE RATE
100–225 mg per serving

EXAMPLE APPLICATIONS
Protein bars, granola bars, BFY cookies, baked snacks, RTD breakfast products

Notes: Starting use rates are formulation guidance derived from the ~80× sucrose potency of the 1.9 blend and category sugar-load ranges; final use rates should be validated by trained sensory panel against your finished product. Two-week sample turnaround for formulation trials.

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Application Impact

Yuka score lift via TomorrowSweet series

Yuka, a leading consumer-facing nutrition rating app, scores food and beverage products on a 0–100 scale based on sugar content, caloric load, and additive risk. Replacing sugar with the TomorrowSweet series lifts these scores cleanly – removing sugar without introducing the artificial sweeteners or flagged additives typical of zero-sugar reformulations.

COMPARATIVE SCORES ACROSS CATEGORIES

COCA-COLA
Coca-Cola Original
39 g sugar · 140 cal · contains additives to avoid
0/100
BAD

COCA-COLA
Diet Coke
0 g sugar · artificial sweeteners · flagged additives
41/100
POOR

POPPI
Orange Prebiotic Soda
5 g sugar · 30 cal · 3 additives (1 limited-risk)
53/100
GOOD

WEEKEND SODA
Orange Cream
Powered by TomorrowSweet series
0 g sugar · 0 cal · 3 risk-free additives
71/100
GOOD

HEAD-TO-HEAD — PREBIOTIC SODA CATEGORY

WITHOUT TOMORROWSWEET

Orange Prebiotic Soda

POPPI

53/100

- 5 g sugar per serving
- 30 calories per serving
- 3 additives – 1 limited-risk, 2 risk-free
- Fiber: 3 g (prebiotic)

WITH TOMORROWSWEET SERIES

Orange Cream

WEEKEND SODA

71/100

- 0 g sugar per serving
- 0 calories per serving
- 3 additives – all risk-free, no flagged ingredients
- No artificial sweeteners

+18 points lift

Sources: Yuka scores from the Yuka app (0–100 scale, based on sugar, caloric load, and additive risk). Yuka is a trademark of Yuca SAS; product names and trademarks belong to their respective owners. Data shown for illustrative comparison only; comparable score lifts are available across additional product categories on request.

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