Stevia Product Specification Sheet

Stevia (Steviol Glycosides) is a natural high-potency sweetener derived from the leaves of *Stevia rebaudiana*. Classified as a food additive (sweetener), it is manufactured from dried stevia leaves through water extraction, refining and crystallization. It delivers **200-450 times** the sweetness of sucrose with **zero calories and zero GI**. Ideal for sugar control, fat loss and diabetic populations, it is widely applied in food, beverages, oral care, pharmaceuticals and other industries.

I. Basic Information

- Chinese Name: Steviol Glycosides (Stevia Sugar, Stevioside)
- English Name: Steviol Glycosides (Stevioside), Stevia
- CAS No.: 57817-89-7
- INS No.: 960
- CNS No.: 19.035
- UN No.: None (Non-dangerous Goods)
- Product Type: Food Additive (Natural High-potency Sweetener), Zero-calorie Functional Sweetener
- Executive Standards: GB 1886.355-2022, GB 2760-2024, US FDA GRAS, EU E960, JECFA, FCC
- Production Process: High-purity crystalline powder produced with dried *Stevia rebaudiana* leaves of the Asteraceae family as raw materials, via water extraction, membrane separation, resin purification, concentration & crystallization, drying and sieving.

II. Appearance & Sensory Characteristics

1. Appearance Properties:

- White to pale yellow crystalline powder, free of visible impurities, good fluidity, low moisture absorption and caking tendency.

2. Odor & Taste:

- Pure sweet taste with no peculiar odor or off-flavor. High-purity grade (RA≥95%) has no bitter aftertaste or metallic taste; regular grade carries slight herbal astringent aftertaste.

3. Solubility:

- Freely soluble in water (approx. 100g/100mL at 25°C), soluble in ethanol with clear aqueous solution; insoluble in non-polar solvents such as benzene and ether.

4. Sweetness Profile:

- Sweetness reaches **200-450 times** that of sucrose (improved with higher purity), featuring slow onset and long-lasting sweetness. Blending with erythritol optimizes the sweetness curve.

5. Calorie Value:

- ≈0 kcal/g (zero-calorie), not involved in human metabolism with negligible calorie intake.

6. GI Value:

- ≈0, non-glycemic, does not stimulate insulin secretion, suitable for sugar-restricted, weight management and diabetic groups.

7. Stability:

● High temperature resistance (≤95℃) and acid-base tolerance (pH 4.0-8.0), low browning tendency, suitable for baking, high-temperature sterilization, acidic beverages and other processing technologies.

III. Physical & Chemical Specifications

Item	Standard Requirement (GB 1886.355-2022)
Total Steviol Glycosides Content (Dry Basis, HPLC)	≥85.0%
Rebaudioside A (Reb A) Content (Dry Basis, HPLC)	≥40.0% (High-end Grade ≥95.0%)
Moisture (Loss on Drying)	≤6.0%
Ash Content (Residue on Ignition)	≤1.0%
pH Value (10% Aqueous Solution)	4.5-7.0
Heavy Metals (Calculated as Pb)	≤1.0 mg/kg
Total Arsenic (As)	≤1.0 mg/kg
Cadmium (Cd)	≤0.1 mg/kg
Mercury (Hg)	≤0.05 mg/kg
Methanol Residue	≤200 mg/kg

IV. Microbiological Limits

Item	Standard Requirement
Total Aerobic Bacterial Count	≤1000 CFU/g (NHC of PRC)
Coliforms	≤0.3 MPN/g (NHC of PRC)
Molds & Yeasts	≤50 CFU/g (NHC of PRC)
Salmonella	Not Detected / 25g
Staphylococcus Aureus	Not Detected / 25g

V. Safety & Compliance

● **China:** Approved by GB 2760-2024, allowed for appropriate use according to production demands in beverages, confectionery, baked goods, dairy products and other foods with **no daily intake limit**.

● **Unsuitable Groups:** Infants under 1 year old (low intestinal tolerance), individuals allergic to Asteraceae plants.

● **Global Recognition:**

- **United States:** FDA GRAS certified, permitted to claim **zero-calorie, anti-caries and dental health benefits**.
- **European Union:** Approved by EFSA safety assessment with code E960, applicable to all food categories with unrestricted ADI.
- **JECFA (FAO/WHO):** Unlimited ADI and fully recognized safety profile.
- **Canada, Australia & New Zealand, Japan and more:** Approved as food sweeteners, compliant for sale in over 100 countries worldwide.

VI. Packaging, Storage & Transportation

- Packaging: 25kg per fiber drum with food-grade PE inner bag; customized small packages of 1kg/5kg/10kg available.
- Storage: Store in cool, dry and ventilated areas, avoid direct sunlight and humid environment; relative humidity ≤65%, keep sealed to prevent moisture absorption.
- Shelf Life: 24 months (unopened under qualified storage conditions); up to 36 months for high-purity crystalline grade.
- Transportation: Shipped as regular food goods, protected from rain, moisture and damage; strictly prohibited to transport with toxic and harmful substances.

VII. Application Fields

- Sugar-Free / Low-Sugar Beverages: Tea drinks, carbonated drinks, fruit juices, sports drinks, plant-based protein beverages (zero-sugar formulations).
- Confectionery & Snacks: Hard candy, gummy candy, chocolate, chewing gum, compressed candy (anti-caries & zero-calorie).
- Baked Foods: Sugar-free biscuits, pastries, bread and cakes (high temperature resistance & anti-browning).
- Dairy Products: Sugar-free yogurt, flavored milk, ice cream and ice lollies (zero-sugar & taste improvement).
- Functional Foods: Sugar-controlled foods, sports nutrition, middle-aged and elderly health foods, ketogenic supplementary foods.
- Oral Care Products: Toothpaste, mouthwash, oral sprays (oral bacteria inhibition, anti-caries & zero-calorie).
- Pharmaceutical Excipients: Medicinal sweeteners, flavor correctives for tablets/granules, fillers for sugar-free pharmaceutical preparations.

VIII. Core Advantages

- Natural Plant Origin: Extracted from stevia leaves with natural glycoside components, non-artificially synthesized, fully compliant with clean label trends.
- Zero-Calorie & Zero-GI: No calorie intake, non-glycemic and insulin-friendly, perfectly suited for sugar control, fat loss and diabetic consumers.
- High Sweetness & Cost-Efficiency: 200-450 times sweeter than sucrose with low dosage and high cost performance, effectively reducing formula costs.
- Anti-Caries & Oral Protection: Non-fermentable by oral bacteria to avoid acid production, inhibits dental plaque and reduces caries risks.
- Excellent Processing Stability: Resistant to high temperature, acid and alkali, anti-browning and high solubility, compatible with beverages, baking, confectionery and full food categories.
- Mild & Safe Metabolism: Non-absorbable and non-accumulative in human body with no gastrointestinal discomfort, superior intestinal tolerance compared to most sugar alcohols.

IX. Quality Assurance

- Batch-specific COA (Certificate of Analysis) provided, including complete physical, chemical and microbiological test data.
- Production system certified in line with HACCP, ISO 22000 and FSSC 22000 food safety management standards.
- Authoritative certifications including Non-GMO, Halal and Kosher are available upon request.
- Full-process quality traceability: Whole-process quality control from stevia raw materials to finished products, ensuring stable batch performance and controllable product quality.

Stevia Nutrition Facts Table

Nutrition Facts (Per 100g)

Item	Per 100g	Nutrient Reference Value % (NRV%)
Energy	≤10 kJ	0%
Protein	0g	0%
Fat	0g	0%
Carbohydrates	≥85.0g	28%
— Including: Steviol Glycosides	≥85.0g	—
Dietary Fiber	0g	0%
Sodium	0mg	0%

Labeling Specifications

1. Nutrition Facts Labeling: Strictly follow the above format in compliance with GB 28050-2025; energy calculated at ≤10kJ/g with fully compliant NRV% labeling.
2. Warning Statement Labeling: Mark prominently (font size ≥ 1/2 of product name): Unsuitable Groups: Infants under 1 year old and individuals allergic to Asteraceae plants.
3. Compliance Statement Labeling: This product complies with GB 1886.355-2022 and GB 2760-2024, permitted for appropriate use as a food sweetener according to production requirements.
4. Product Naming Labeling: Mark both Chinese name **Steviol Glycosides (Stevia Sugar)** and English name **Steviol Glycosides**, and clearly indicate crystalline grade and purity (e.g., Total Glycosides ≥95.0g/100g).
5. Claim Specifications: Permitted claims include **zero-calorie, non-glycemic, anti-caries and natural sweetener**; medical efficacy claims such as blood sugar reduction, weight loss and disease treatment are prohibited.

Key Notes

1. NRV% Calculation: In accordance with GB 28050-2025: Energy NRV=8400kJ, Carbohydrate NRV=300g; energy coefficient of steviol glycosides ≤0.1kJ/g.
2. Carbohydrate Labeling Logic: Steviol glycosides belong to natural glycoside carbohydrates and are included in total carbohydrates; it does not cause blood sugar elevation, allowing **sugar-free / low-sugar** labeling on packaging.
3. Metabolic Characteristics: Excreted directly without human absorption after intake, featuring mild metabolism and zero accumulation risk.
4. Export Labeling: Add regional compliance certifications for overseas markets (e.g., FDA GRAS, EU E960, JECFA Certification).