Erythritol Product Specification Sheet

I. Basic Information

- Chinese Name: Erythritol
- English Name: Erythritol, meso-Erythritol
- CAS No.: 149-32-6
- INS No.: 968
- CNS No.: 19.018
- UN No.: None (Non-dangerous Goods)
- Product Type: Food Additive (Sweetener), Zero-Calorie Functional Sugar Alcohol
- Executive Standards: GB 26404-2011 (China), US FDA GRAS, EU EFSA, JECFA, FCC, GB 2760-2024
- Production Process: High-purity crystalline product manufactured by using glucose as raw material, fermented and converted by *Candida lipolytica* / *Moniliella* / *Trichosporonoides* spp., followed by purification, crystallization, drying, sieving and other processes

II. Appearance & Characteristics

Appearance & Properties:

White crystalline powder/granules, no visible impurities, good fluidity, low hygroscopicity and non-caking tendency

Odor & Taste:

Pure and refreshing sweetness, no off-odor or peculiar smell, cool sensation in mouth, no bitter aftertaste, metallic taste or undesirable lingering taste

Solubility:

Very soluble in water, slightly soluble in ethanol, dissolves rapidly at room temperature, aqueous solution is clear without precipitation

Sweetness Profile:

Approximately 70% sweetness of sucrose, highly consistent sweetness profile with sucrose, can replace sucrose at 1:1 ratio

Caloric Value:

0 kJ/g (0 kcal/g), the only genuine zero-calorie sweetener meeting zero-calorie food standards

GI Value:

≈0, does not participate in human blood glucose metabolism, does not stimulate insulin secretion, suitable for sugar-controlled, ketogenic and diabetic populations

Stability:

Heat-resistant (≥180℃), acid and alkali resistant, not easily decomposed during processing, suitable for various food processing technologies

III. Physical & Chemical Specifications

Item	Standard Requirement
Erythritol Content (Dry Basis, HPLC)	≥99.5%
Moisture (Loss on Drying)	≤0.2%
Ash (Residue on Ignition)	≤0.1%
pH (10% Aqueous Solution)	5.0–7.0
Reducing Sugars (Calculated as Glucose)	≤0.3%
Ribitol + Glycerol (Dry Basis)	≤0.1%
Heavy Metals (Calculated as Pb)	≤0.5 mg/kg
Total Arsenic (As)	≤0.3 mg/kg
Cadmium (Cd)	≤0.1 mg/kg
Mercury (Hg)	≤0.05 mg/kg

IV. Microbiological Limits

Item	Standard Requirement
Total Plate Count	≤300 CFU/g
Coliforms	≤0.3 MPN/g
Molds & Yeasts	≤50 CFU/g
Salmonella	ND/ 25g
Staphylococcus aureus	ND/ 25g

V. Safety & Compliance

China:

Approved by GB 2760-2024, may be used appropriately in various foods according to production needs, no daily limit

Unsuitable Population:

Infants under 2 years old (underdeveloped intestinal tract, prone to gastrointestinal discomfort)

International Recognition:

- US: FDA GRAS (Generally Recognized as Safe), allowed to claim “Dental Health Benefit”
- EU: Approved by EFSA safety assessment, permitted for use in all food categories
- JECFA (FAO/WHO): No ADI limitation, fully recognized safety
- Canada, Australia & New Zealand, Japan, etc.: All approved as food sweeteners

Labeling Claims:

Label “Erythritol”; Prohibited in infant foods; May claim “Zero Calorie, Non-Glycemic, Anti-Cariogenic”

VI. Packaging & Storage

- Packaging:
  25 kg / fiber drum (food-grade PE inner bag); customizable specifications of 1 kg, 5 kg, 10 kg, 20 kg available
- Storage:
  Sealed, stored in a cool, dry and ventilated area; avoid direct sunlight, high temperature (≤30℃) and humidity (RH≤65%)
- Transportation:
  Transported as general non-dangerous goods, protected from rain, moisture, sunlight, odor contamination and damage
- Shelf Life: 24 months under sealed storage

VII. Applications

- Beverages: Sugar-free tea, coffee, carbonated drinks, sports drinks, solid beverages, flavored water
- Baking: Biscuits, cakes, bread, pastries, meal replacement bars (heat-resistant, natural browning)
- Dairy Products: Yogurt, ice cream, cheese, milk drinks, sugar-free milk tablets
- Confectionery & Snacks: Hard candies, soft candies, chocolate, chewing gum, energy bars, lozenges, compressed candies
- Functional Foods: Sugar-controlled foods, ketogenic foods, sports nutrition, health foods for middle-aged and elderly people, special dietary foods
- Oral Care: Toothpaste, mouthwash (anti-cariogenic, inhibits acid production by oral bacteria)
- Pharmaceutical Excipients: Medicinal sweetener, flavor corrector for granules and tablets, humectant

VIII. Core Advantages

- Zero Calorie: The only national standard-certified 0 kJ/g sweetener, truly zero-calorie
- Glycemic-Friendly: GI=0, does not raise blood glucose or stimulate insulin, suitable for diabetics
- Gastrointestinal Tolerance: Best tolerance among sugar alcohols; 90% absorbed in small intestine and excreted in urine, less likely to cause bloating or diarrhea
- Anti-Cariogenic: Not fermented by oral bacteria to produce acid, protects tooth enamel and reduces caries risk
- Processing Compatibility: Heat-resistant, acid and alkali resistant, good fluidity, non-hygroscopic, suitable for all food processing technologies
- Global Compliance: Approved in multiple regions worldwide, ideal for export and cross-border food products

IX. Quality Assurance

- COA (Certificate of Analysis) provided for each batch with full testing data
- Production system complies with HACCP, ISO 22000, FSSC 22000 food safety management standards
- Authoritative certifications available: **Non-GMO, Halal, Kosher**
- Full-process quality traceability and control from raw materials to finished products to ensure batch consistency

Erythritol Nutrition Facts Table

Basic Information

Product Name: Erythritol

Product Grade: Crystalline Grade (Content ≥99.5 g/100 g)

Executive Standards: GB 26404-2011, GB 2760-2024, GB 28050-2025

Recommended Intake: ≤50 g per day for adults, ≤30 g per single intake; prohibited for infants

Unsuitable Population: Infants under 2 years old

Nutrition Facts (Per 100 g)

Item	**Per 100 g**	**NRV%**
Energy	0 kJ	0%
Protein	0 g	0%
Fat	0 g	0%
Carbohydrate	99.5 g	33%
— Including: Erythritol (Sugar Alcohol)	≥99.5 g	—
Dietary Fiber	0 g	0%
Sodium	0 mg	0%

Labeling Specifications

1. Nutrition Facts Labeling: Strictly follow this table format in accordance with GB 28050-2025; energy calculated at 0 kJ/g, accurate and compliant NRV%
2. Warning Statement: Clearly marked in prominent position (font size ≥ 1/2 of product name): Unsuitable Population: Infants under 2 years old
3. Compliance Statement: This product complies with GB 26404-2011 and GB 2760-2024, and can be used as a food sweetener in appropriate amounts according to production needs
4. Product Name Labeling: Both Chinese “Erythritol” and English “Erythritol” shall be marked, with clear indication of “Crystalline Grade” and purity ≥99.5 g/100 g
5. Claim Specifications: May label “Zero Calorie, Non-Glycemic, Anti-Cariogenic”; medical efficacy claims (e.g. “lower blood sugar, weight loss, cure diseases”) are prohibited

Key Notes

1. NRV% Calculation: Based on GB 28050-2025: Energy NRV=8400 kJ, Carbohydrate NRV=300 g; energy coefficient of erythritol is 0 kJ/g, resulting in 0% energy NRV
2. Carbohydrate Labeling Logic: Erythritol is a sugar alcohol carbohydrate and included in total carbohydrates; however, it does not participate in blood glucose metabolism or be utilized by the human body, so no “added sugar” labeling is required on the label
3. Metabolic Characteristics: 90% absorbed in small intestine and excreted intact in urine, 10% excreted in feces; no metabolic burden, no accumulation, no heat production
4. Export Labeling: Supplement corresponding compliance logos for overseas markets (e.g. FDA GRAS, EU E968, JECFA certification).