

## Technical Data Sheet (TDS)

**Issue Date:** 27 FEB 2026 **Product Name:** Erythritol (Food Grade, Anhydrous) **CAS Number:** 149-32-6

### 1. Product Overview

- **English Name:** Erythritol (Food Grade, Anhydrous)
- **Chinese Name:** 赤藓糖醇（无水食品级）
- **CAS No.:** 149-32-6
- **Molecular Formula:** C<sub>4</sub>H<sub>10</sub> O<sub>4</sub>
- **Molecular Weight:** 122.12 g/mol
- **Source:** Produced by food-grade microbial fermentation (*Candida magnoliae*) of glucose syrup, followed by purification, crystallization and drying; complies with food GMP and low-calorie sweetener production requirements, natural and green production process.
- **Core Characteristics:** White crystalline powder/granule, odorless, mild clean sweet taste (relative sweetness ≈0.6-0.7 of sucrose) with a unique cool mouthfeel; natural low-calorie polyol sweetener (0.2 kcal/g); almost unmetabolized in the human body (90% excreted unchanged), no blood sugar fluctuation, tooth-friendly; freely soluble in water, stable in acidic/alkaline systems; non-toxic, fully biodegradable; meets national/international food safety standards, the core sweetener for low-sugar/zero-sugar food and beverage production worldwide.

### 2. Technical Specifications (Complies with GB 2760-2021 & International Food Polyol Sweetener Standards)

Test Item	Food Grade Specification
Appearance	White crystalline powder/granule, free-flowing, no caking
Assay (Erythritol)	≥ 99.5%
Melting Point	118-120°C
pH Value (25°C, 10% aqueous solution)	5.0-7.0
Loss on Drying (105°C, 2h)	≤ 0.2%
Ash Content	≤ 0.01%
Reducing Sugar (as Glucose)	≤ 0.01%
Heavy Metals (Pb)	≤ 0.5 ppm
Arsenic (As)	≤ 0.1 ppm
Cadmium (Cd)	≤ 0.05 ppm
Mercury (Hg)	≤ 0.01 ppm
Residue on Ignition	≤ 0.01%
Total Bacterial Count	≤ 10 CFU/g
Yeast & Mold	≤ 5 CFU/g
E. coli / Salmonella	Negative
Water Solubility	Freely soluble in water (≈610 g/L at 25°C), slightly soluble in ethanol
Temperature Stability	Stable at 0-121°C (no decomposition)
pH Stability	Stable at pH 2.0-9.0 (all food systems)
Hygroscopy	Slightly hygroscopic (caking at RH>75%)

### 3. Core Product Advantages

1. **Natural Low-Calorie & Metabolic Friendly:** Microbial fermentation production, natural source; only 0.2 kcal/g (1/20 of sucrose), almost no calorie intake; 90% excreted unchanged in urine, no metabolism in the liver, no blood sugar/insulin fluctuation – ideal for diabetics, obese people and low-sugar diet populations.
2. **Mild Taste & Cool Mouthfeel:** Clean mild sweet taste with no bitter aftertaste, relative sweetness ≈0.6-0.7 of sucrose; unique cool mouthfeel when dissolving in the mouth, enhances the flavor of beverages, candies and dairy products, no greasy taste.



# NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.  
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

- 3. **High Safety & Wide Adaptability:** FAO/WHO ADI 0-50 mg/kg body weight, FDA GRAS certified; no acute/chronic toxicity, no sensitization/mutagenicity; tooth-friendly (no fermentation by oral *Streptococcus mutans*, no dental caries); safe for all population groups including infants, pregnant women and the elderly.
- 4. **Excellent Stability & Compatibility:** Extremely stable in acidic/alkaline food systems (pH 2.0-9.0); no decomposition in high-temperature sterilization (121 °C) and baking; no incompatibility with any common food additives (sucrose, stevia, acidulants, preservatives, emulsifiers); can be mixed with any sweetener to adjust taste and sweetness.
- 5. **Low Hygroscopicity & Good Processability:** Slightly hygroscopic (only caking at RH>75%), better anti-caking performance than sorbitol/xylitol; free-flowing powder/granule, easy to mix and process; no crystallization separation in aqueous solution, suitable for all food processing forms (liquid, solid, semi-solid).
- 6. **Tooth-Friendly & Green Environmental Protection:** No utilization by oral bacteria, no lactic acid production, effectively preventing dental caries; microbial fermentation production process, green and sustainable; fully biodegradable in natural environment, no environmental pollution.

## 4. Wide Application Fields

Erythritol is the core natural low-calorie sweetener for low-sugar/zero-sugar food and beverage, suitable for all types of food production, especially for low-sugar/zero-sugar beverage, confectionery, bakery, dairy, health food and baby food:

- **Beverage Industry:** Zero-sugar soda, fruit juice, tea drink, sports drink, plant milk, yogurt drink; core sweetener, provides mild sweetness and cool mouthfeel, no sugar residue, matches the flavor of fruit/tea raw materials, no blood sugar impact.
- **Confectionery Industry:** Zero-sugar hard candy, soft candy, chocolate, chewing gum, lollipop; sweetener/bulking agent, cool mouthfeel enhances candy flavor, no bitter aftertaste, tooth-friendly, no crystallization separation.

## 5. Usage Methods & Recommended Dosage

Food Type	Recommended	Application Note
Zero-sugar Beverage/Tea	3-10%	Single use or mixed with stevia/monk
Zero-sugar	10-80%	Main sweetener, cool mouthfeel
Low-sugar Bread/Cake/Pastry	5-20%	Replace sucrose in equal amount or
Zero-sugar Yogurt/Ice	2-8%	Balance sour taste, cool mouthfeel
Health Food/Meal Replacement	5-15%	Core low-calorie sweetener, no
Low-sugar Seasoning/Jam/Salad	1-5%	Balance taste, low calorie, no impact
Infant Low-sugar Food	1-3%	Mild sweetness, safe and non-

## 6. Packaging, Storage & Transportation

- **Small Batch:** 1kg/5kg/10kg – Food-grade aluminum foil bags (sealed, moisture-proof, oxygen-free) with inner plastic lining for small-scale production, health food and laboratory use.
- **Standard Batch:** 25kg – Food-grade HDPE plastic drums/cartons (sealed, dust-proof, moisture-proof) with inner plastic film for medium/large-scale food production.
- **Bulk Batch:** 500kg/1000kg – Food-grade FIBC bulk bags (moisture-proof PE liner, sealed valve) for large-scale industrial production and export.
- **Custom Packaging:** 200g/500g food-grade small packaging (plastic bottle/ziplock bag) available upon request for retail and small-batch household use.

## 7. Safety & Quality Assurance

- The product is food-grade, non-toxic, non-irritating; no mandatory PPE for small-scale use; wear non-slip food-grade safety shoes for bulk handling to prevent slipping from spilled powder/granule; FFP1 dust mask is optional for heavy dust generation (only to prevent dust inhalation).
- Follow food hygiene operation standards: wash hands with soap and water after handling; use dedicated food-grade equipment/containers; keep the operating area dry to avoid caking of spilled powder; infant/health food production uses sterile dedicated equipment to avoid cross-contamination.