

Maltitol Powder



Our **maltitol powder** is a high-purity sugar alcohol (polyol) produced by catalytic hydrogenation of **maltose** derived from **non-GMO corn or wheat starch** (gluten-free processed). With $\geq 98\%$ maltitol content and a sweetness profile at **90% that of sucrose**, it delivers a clean, sugar-like taste without the bitter aftertaste common in other polyols.

Unlike artificial sweeteners, maltitol is heat-stable, non-cariogenic, and suitable for “sugar-free” and “no added sugar” labeling—making it a preferred choice for premium confectionery, diabetic-friendly foods, and clean-label bakery applications.

△ **Note:** Our wheat-derived version undergoes rigorous gluten removal and testing (<5 ppm), but we also offer a **corn-based option** for strict gluten-free requirements.

What Is Maltitol?

Maltitol ($C_{12}H_{24}O_{11}$) is a disaccharide alcohol formed by reducing maltose. Our **maltitol powder** is manufactured under protocols using food-grade hydrogenation catalysts, followed by crystallization and drying—without synthetic solvents, bleaching agents, or chemical modification.

The final product appears as fine, white, free-flowing crystals with excellent solubility and minimal hygroscopicity, ideal for dry and semi-moist formulations.

Key Functional & Health Benefits

- **High sweetness equivalence:** ~90% of sucrose, with clean taste
- **Low Glycemic Index (GI ≈ 35):** Suitable for diabetic and low-sugar diets
- **Non-cariogenic:** Does not promote tooth decay (approved by EFSA & FDA for dental claims)
- **Heat-stable:** Withstands baking, roasting, and chocolate tempering (melting point: 148-152°C)
- **Bulking agent:** Provides volume and texture like sugar—ideal for hard candies and tablets
- **Prebiotic potential:** Partially fermented in colon; may support gut health at moderate doses

Digestive Note: Like all polyols, excessive intake (>20-30 g per serving) may cause laxative effects in sensitive individuals. Recommended daily intake: ≤50 g.

Technical Specifications

Parameter	Maltitol Powder
Source Options	Corn starch or wheat starch (gluten-removed)
Appearance	White, crystalline, free-flowing powder
Odor & Taste	Odorless; sweet, cooling effect (mild)
Maltitol Content (Dry Basis)	≥98.0% (HPLC method)
Moisture Content	≤0.5%
pH (10% solution)	5.0 - 7.0
Specific Rotation	+128° to +132°
Melting Point	148 - 152°C
Bulk Density	0.60 - 0.80 g/mL
Particle Size (D[90])	≤250 μm (standard); custom milling available

Parameter	Maltitol Powder
Residual Sugars (Glucose + Maltose)	≤1.0%
Ash Content	≤0.1%
Shelf Life	36 months (stored sealed in cool, dry place)
Heavy Metals (Maximum Limits)	
- Lead (Pb)	≤0.1 mg/kg
- Arsenic (As)	≤0.1 mg/kg
- Cadmium (Cd)	≤0.05 mg/kg
- Mercury (Hg)	≤0.01 mg/kg
Microbiological Criteria	
- Total Plate Count	≤1,000 CFU/g
- Yeast & Mold	≤100 CFU/g
- <i>Escherichia coli</i>	Absent in 1 g
- <i>Salmonella</i> spp.	Absent in 25 g
- <i>Listeria monocytogenes</i>	Absent in 25 g
Allergen Status	Corn version: Gluten-Free, Soy-Free, Dairy-Free Wheat version: Processed to <5 ppm gluten (not certified GF unless specified)
Certifications	Non-GMO Project Verified, Kosher, Halal (available), Gluten-Free Certified (corn version only)

Analytical methods: HPLC per USP/EP standards. Complies with FDA 21 CFR 184.1555 (GRAS), EU Regulation (EC) No 1133/2008, and JECFA specifications.

Applications

- **Sugar-Free Chocolate:** Prevents bloom, provides smooth mouthfeel
- **Baked Goods:** Retains moisture, browns like sugar (Maillard reaction limited)
- **Hard & Soft Candies:** High solubility enables clear, non-sticky textures
- **Chewing Gum & Lozenges:** Long-lasting sweetness, dental health claims
- **Nutritional Bars & Tablets:** Binder and sweetener in one
- **Ice Cream & Frozen Desserts:** Lowers freezing point, improves scoopability

Why Choose Our Maltitol?

We source only from certified farms and use dedicated production lines to prevent cross-contamination. Our hydrogenation process avoids nickel residues through advanced filtration, and every batch is tested for purity, allergens, and heavy metals.

We clearly label the botanical origin (corn or wheat) to support your compliance and consumer transparency needs.

Available packaging:

- 25 kg multi-wall paper bags with PE liner
- 500 kg-1,000 kg FIBCs for industrial users
- Custom particle size (fine or coarse grind) upon request

FAQs

Q: Is maltitol powder safe for diabetics?

A: Yes! Its low glycemic index (GI 5) causes minimal blood sugar spikes, making it diabetic-friendly.

Q: How does maltitol compare to erythritol or xylitol?

A: Maltitol has higher solubility and mimics sugar's texture more closely, but has slightly higher calories.

Q: Can it replace sugar 1:1 in recipes?

A: Use at a 1:1 ratio for sweetness, but reduce liquid content slightly due to maltitol's hygroscopicity.

Q: Does it cause digestive discomfort?

A: Consumed in excess (>20g/day), it may cause laxative effects—common with sugar alcohols.

Packing



For more information, please visit our website:

<https://www.bio-starch.com/products/maltitol-powder/>