

## Organic Trehalose Powder



### What is Organic Trehalose Powder?

Organic Trehalose Powder is a naturally occurring disaccharide derived from organic sources like starch. Known for its mild sweetness, excellent stability, and non-reactive nature, it is a versatile ingredient widely used in the food, beverage, pharmaceutical, and cosmetic industries. Trehalose offers functional benefits such as moisture retention, antioxidative properties, and protection against protein degradation, making it an ideal choice for various applications.



## Production Process:

1. **Raw Material Selection:** High-quality organic starch is used as the base material.
2. **Enzymatic Conversion:** Starch is hydrolyzed using enzymes to produce trehalose.
3. **Purification:** The solution is refined and filtered to remove impurities.
4. **Crystallization & Drying:** Trehalose is crystallized and dried into a stable powder.
5. **Quality Assurance:** Rigorous testing ensures compliance with organic and safety standards.

## Key Features:

- **Certified Organic:** Complies with USDA and EU organic standards.
- **Mild Sweetness:** Approximately 45% as sweet as sucrose, providing a subtle, non-overpowering flavor.
- **Excellent Stability:** Resistant to heat and acid, suitable for high-temperature processing.
- **Low Hygroscopicity:** Prevents moisture absorption, maintaining product quality.
- **Antioxidant Properties:** Protects cells and biomolecules from oxidative stress.
- **Non-GMO & Allergen-Free:** Safe for a wide range of dietary needs.

## Specification

| Parameter  | Specification            |
|------------|--------------------------|
| Appearance | White crystalline powder |
| Odor       | Odorless                 |

| Parameter                   | Specification                                  |
|-----------------------------|--|
| Solubility                  | Soluble in water                               |
| Purity                      | ≥ 99.5%  |
| Moisture Content            | ≤ 2.0%   |
| pH (1% solution)            | 5.0 - 6.7                                      |
| Heavy Metals                |  |
| Lead (Pb)                   | ≤ 0.5 mg/kg                                    |
| Arsenic (As)                | ≤ 0.1 mg/kg                                    |
| Microbiological Information |  |
| Total Plate Count           | ≤ 1000 CFU/g                                   |
| Yeast and Mold              | ≤ 100 CFU/g                                    |
| Salmonella                  | Absent in 25g                                  |
| E. coli                     | Absent in 1g                                   |
| Storage Conditions          | Store in a cool, dry place away from sunlight. |
| Shelf Life                  | 24 months from the date of manufacturing       |

## Applications:

### 1. Food & Beverage

- **Bakery Products:** Improves texture, extends shelf life, and prevents staling in bread, cakes, and pastries.
- **Confectionery:** Enhances the stability of candies, chocolates, and gum without altering taste.
- **Beverages:** Acts as a stabilizer and enhances flavor in energy drinks, teas, and fruit juices.
- **Frozen Desserts:** Improves freeze-thaw stability in ice creams and frozen yogurts.

### 2. Pharmaceuticals

- **Drug Stabilization:** Protects active ingredients in formulations against heat, dehydration, and oxidation.
- **Protein Preservation:** Stabilizes protein-based drugs and vaccines during processing and storage.

### 3. Cosmetics & Personal Care

- **Moisturizers:** Retains moisture in skin care products like creams and lotions.
- **Anti-Aging Formulations:** Protects skin cells from oxidative damage.
- **Hair Care:** Prevents hair damage by maintaining hydration in shampoos and conditioners.

### 4. Industrial Applications

- **Biotechnology:** Used as a cryoprotectant for preserving cells, enzymes, and microorganisms.
- **Agriculture:** Stabilizes bioactive compounds in agricultural formulations.

### 5. Specialty Foods

- **Functional Foods:** Enhances texture and stability in health bars, protein powders, and meal replacements.
- **Low-Sugar Alternatives:** Adds sweetness without significantly impacting blood sugar levels.

### Health Benefits:

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1. **Cellular Protection:** Shields proteins and lipids from damage caused by stress and oxidation.
2. **Energy Source:** Serves as a quick and efficient energy source.
3. **Moisture Retention:** Prevents dehydration in food products, cosmetics, and pharmaceuticals.
4. **Supports Longevity:** Often used in formulations to enhance the shelf life of sensitive ingredients.

### Why Choose Our Organic Trehalose Powder?

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- **Superior Quality:** Produced under strict organic and quality control standards.
- **Versatility:** Suitable for a wide range of applications across industries.
- **Eco-Friendly Production:** Sourced and processed sustainably.
- **Customizable Solutions:** Available for bulk orders, private labeling, and tailored specifications.

### Packing

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Want to learn more about this product or have any questions?

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