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TECHNICAL DATA SHEET

TDS-ENZ278-EN · REV. 02 · 2026-11-03

# Food-Grade Phytase Enzyme

Solid phytase powder that hydrolyzes phytic acid in grains, legumes, oilseeds and other plant-derived raw materials.

SKU **ENZ278** CATEGORY **PHYTASE** CAS **9000-90-2** GRADE **FOOD GRADE** FORM **SOLID POWDER**

Food grade · Not restricted for transport · Produced by submerged fermentation

| DECLARED ACTIVITY | OPTIMUM TEMPERATURE | OPTIMUM PH | SHELF LIFE |
|---|---|---|---|
| **100000U/g** | **50–60 °C** | **4.5–5.5** | **12 months** |
| as stated in Operating Conditions | optimal temperature as stated | optimal pH as stated | sealed, see storage below |

## SPECIFICATION

| IDENTITY | |
|---|---|
| CAS | 9000-90-2 Typical |
| Product type | Phytase Typical |
| **ACTIVITY** | |
| Enzyme activity | **≥ 100,000 U/g** Spec |
| Enzyme activity | **100000U/g** Typical |
| **WORKING WINDOW** | |
| Optimal temperature | 50–60 °C Typical |
| Optimal pH | 4.5–5.5 Typical |
| Inactivation | about 95 °C for 20 minutes (process dependent) Typical |
| **PHYSICAL** | |
| Appearance | **Light yellow or light grey powder** Spec |
| Loss on drying | ≤ 8.0 % Spec |
| Dispersibility | Disperses in aqueous environments Typical |
| **PURITY AND HYGIENE** | |
| Heavy metals | < 30 mg/kg Spec |
| Arsenic (As) | < 2.0 mg/kg Spec |
| Lead (Pb) | < 2.0 mg/kg Spec |
| Total plate count | ≤ 10,000 CFU/g Spec |

**Spec** = release limit, confirmed on every lot's Certificate of Analysis. **Typical** = normal product behaviour, not a release limit.

## STORAGE & PACKAGING

SHELF LIFE
**12 months**

STORAGE
**Cool, dry environment away from direct sunlight; keep tightly sealed; avoid high humidity and high temperatures**

PACK SIZE
**1 kg/bag, sealed food-grade aluminum foil bag**

ORDERING
**Online or by e-mail; current price on the product page**

## APPLICATIONS

**Grain and cereal processing**
Breaks down phytic acid to reduce anti-nutritional factors in cereals and whole grains.

**Soy and legume food manufacturing**
Improves digestibility of soy beverages and soy powders.

**Plant-based beverage production**
Increases protein solubility and reduces sedimentation in plant-based drinks.

**Flour treatment and baking**
Increases mineral availability in flour-based formulations.

**Feed industry**
Lowers phytate-bound phosphorus and increases effective phosphorus utilization in feed.

## DOSAGE

### 0.1–0.3 kg per metric ton

kg phytase per metric ton of raw material, food processing

| | |
|---|---|
| Substrate | **Grains, soy, plant-based beverages** |
| Rate | **0.1–0.3 kg phytase per metric ton of raw material** |

Corn steep liquor / corn mash: 0.5–1.0 kg per metric ton of raw material.
Soil remediation: 1–2 kg per metric ton of treated substrate or soil blend.

Each lot is released against its specification; the lot Certificate of Analysis reports the measured values.



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Online: enzymes.bio/product/food-grade-phytase-enzyme

Use appropriate protective equipment to avoid dust inhalation during handling. This technical data sheet gives the product specification and typical values; it is not a batch certificate. A Certificate of Analysis for the supplied lot accompanies each shipment. Safety Data Sheet on request.

SCAN TO ORDER