

TECHNICAL DATA SHEET

MAXIM (18-18-5)

Granular NPK Fertilizer for Soil Application

Product Description

MAXIM (18-18-5) is a high-quality granular NPK fertilizer formulated for uniform soil application and early crop nutrition. With a balanced composition of **Nitrogen (18%)**, **Phosphorus (18% P₂O₅)**, and **Potassium (5% K₂O)**, MAXIM promotes strong root establishment, rapid early growth, and improved nutrient availability during critical crop stages.

Its free-flowing, hard granules ensure even spreading and minimal dust, making it ideal for broadcast, banding, and seed-row applications.

Guaranteed Analysis

Nutrient	Content	Form
Total Nitrogen (N)	18%	8% Nitrate, 10% Ammonium
Available Phosphorus (P ₂ O ₅)	18%	Citrate-soluble
Soluble Potassium (K ₂ O)	5%	Potassium salts

Physical & Technical Properties

Parameter	Specification
Physical Form	Hard granules

Granule Size	2–4 mm (uniform)
Bulk Density	0.9 – 1.1 g/cm ³
Caking Tendency	Low (anti-caking agent added)
Dust Content	Minimal

Mode of Action (Plant Nutrition)

- **Nitrogen (N):** Supports early vegetative growth, leaf development, and chlorophyll formation.
- **Phosphorus (P):** Enhances root development, energy transfer, and early crop vigor.
- **Potassium (K):** Improves water regulation, stress tolerance, and overall plant health.

The balanced NPK formulation ensures efficient nutrient uptake during early establishment and initial growth phases.

Target Crops

- **Field Crops:** Corn (maize), wheat, barley
- **Vegetables:** Potatoes, tomatoes (pre-plant incorporation)
- **Turf:** New lawn establishment
- **Fruit Orchards:** Young tree planting

Key Features & Benefits

- **Uniform Granules:** Consistent size ensures even nutrient distribution
- **Root-Stimulating Formula:** High phosphorus supports strong root development
- **Slow Nitrogen Availability:** Controlled nutrient release reduces losses
- **Spreader-Ready:** Optimized for mechanical application
- **Low Dust:** Cleaner handling and reduced equipment wear

- **Early Crop Vigor:** Ideal for starter and basal applications

Recommended Application Rates

Application Guidelines

Method	Dosage	Equipment	Notes
Broadcast	300–400 kg/ha	Rotary spreader	Incorporate before planting
Banding	100–150 kg/ha	Grain drill	Place 5 cm beside seed
Seed-Row	50–75 kg/ha	Air seeder	Safe for direct contact

For best results, apply 2–3 weeks before planting.

Granule Performance Characteristics

- **Granule Hardness:** ≥ 230 N (resists breakdown during handling)
- **Dissolution Rate:** ~80% within 7 days (soil moisture dependent)
- **Coating:** Polymer-coated to reduce nutrient leaching
- **Color:** Light blue for easy visual identification during application

Compatibility

Compatible with MAP, DAP, and most granular micronutrients
Avoid mixing with urea granules (risk of hygroscopic caking)

Safety & Handling

Precautions

- Use closed or shielded equipment during broadcasting
- Avoid prolonged inhalation of dust
- Clean equipment after use to prevent corrosion

First Aid

- **Inhalation:** Move to fresh air
- **Skin Contact:** Wash with soap and water
- **Eye Contact:** Rinse with clean water for several minutes

Storage & Shelf Life

- Store in a dry, well-ventilated area
- Keep bags on pallets to prevent moisture absorption
- Maximum stack height: **10 bags**
- Keep away from fertilizers containing urea
- **Shelf life:** 24 months under proper storage conditions

Packaging

- 10 kg bags
- 25 kg bags

Granular Application Tips

1. Calibrate spreader for **2.2–2.8 m/s** ground speed
2. Overlap passes by approximately **30%** for even coverage
3. Reseal unused product and store in original packaging