



# DSPN G

## *Yeast Nutrition booster for Grain Fermentation*

Grain-based ethanol fermentation presents unique operational challenges due to high carbohydrate concentration, elevated dissolved solids, and limited buffering capacity. These conditions often create osmotic stress on yeast and rapid pH drop caused by microbial contamination and volatile acid production. Nutritional imbalance, particularly the lack of essential micronutrients, can further weaken yeast performance, resulting in sluggish fermentation, increased residual sugars, and reduced ethanol yield.

DSPN-G is a specially designed yeast nutrient formulation developed for grain fermentation processes. It provides a balanced combination of macro and micronutrients required for optimal yeast metabolism and fermentation efficiency. The formulation supports yeast growth, enhances fermentation kinetics, and helps maintain yeast health under stressful process conditions.

### **Mode of Action**

DSPN-G supplies essential assimilable nitrogen along with critical micronutrients such as amino acids, vitamins, magnesium, manganese, and zinc. These components support enzymatic activities, metabolic pathways, and cellular housekeeping functions in yeast. The nutrient complex promotes rapid yeast propagation during the log phase; this improved fermentation efficiency and yield.

### **Product Key Benefits**

- Provides essential macro and micronutrients required during grain fermentation
- **Urea reduction in grain fermentation by 40-60%.**
- Supplies assimilable nitrogen to support yeast metabolism
- Promotes faster yeast growth and improved fermentation kinetics
- Enhances ethanol productivity with reduced by-product formation
- Performs effectively across typical industrial fermentation pH and temperature conditions

## Product Application

DSPN-G is designed for use as a yeast nutrient supplement in grain ethanol fermentation processes.

## Application Stages

- Yeast propagation, Pre-fermentation, Fermentation

## Operational Conditions

- **Temperature:** 30 – 50°C
- **pH Range:** 3.5 – 5.5

## Dosage

- 40 – 60 ppm

## Product Characteristics

- **Composition:** Nutrient mixture
- **Form:** Powder
- **Appearance:** Off-white to brown

## Shelf Life

Best used within **3 months** from the date of delivery when stored under recommended conditions.

## Packaging

25 kg HDPE drum containing 25 packs of 1 kg aluminium sachets.

## Storage Conditions

Store in a shaded area away from direct sunlight and moisture.

## Product Handling

- Inhalation of dust or aerosols may cause sensitization or allergic reactions in susceptible individuals.
- Prolonged contact may irritate skin, eyes, or mucous membranes.
- Avoid generating aerosols during handling or mixing.
- Spilled material may dry and create dust; clean using water flushing.
- Use appropriate personal protective equipment (gloves, protective clothing, and eye protection).
- Follow the MSDS for detailed safety instructions.



ISO 9001:2015 Certified | FSC 22000 Certified

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Certifications:

