



Nutriboost CPNS

Fueling Microbial Performance in Anaerobic Digesters

Product Overview

Nutriboost CPNS is a scientifically formulated blend of essential micronutrients and bioactive compounds that enhances the growth, stability, and efficiency of anaerobic microbial populations—especially methanogens—in biogas digesters. It promotes balanced microbial metabolism, resulting in higher biogas yield, faster digestion, and improved process reliability.

Why Use Nutriboost CPNS?

- Accelerates substrate hydrolysis and digestion.
- Stimulates methanogen growth and stability.
- Increases methane and biogas output.
- Supports higher organic loading and reduces Hydraulic Retention Time (HRT).
- Speeds up start-up in new or restarted digesters.
- Reduces accumulation of toxic by-products (H_2S , ammonia, volatile acids).
- Stabilizes digesters under variable load and stress conditions.

Applicable Substrates

- **Agro-industrial waste:** Press mud, bagasse, rice straw, sugarcane trash, napier grass.
- **Industrial wastewater:** Distillery spent wash, condensate, pulp & paper, dairy, food & beverage.
- **Other Wastes:** Food waste, municipal solid waste, poultry waste.



Mode of Action

Anaerobic digestion depends on sensitive microbial consortia, especially methanogens, which are affected by loading fluctuations, toxicants, and nutrient imbalances.

Nutriboost CPNS provides targeted micronutrients and cofactors that:

- Activate enzymes for hydrolysis, acidogenesis, acetogenesis, and methanogenesis.
- Support coenzyme formation and electron transfer.
- Enhance microbial resilience under stress (VFA, ammonia, etc.).
- Maintain community balance for long-term performance.

Dosage & Recommendations

Dosing depends on digester conditions and feedstock characteristics.

- **Shock dose:** During start-up or upset recovery (5–7 days)
- **Maintenance dose:** 10–30 ppm based on feed rate, feedstock composition, COD/BOD, and digester volume
- Custom dosage available upon request based on lab analysis.

Optimum Conditions

- **Temperature:** 30–50°C
- **pH:** 6.0–8.0

Product Profile

- **Form:** Fine powder
- **Appearance:** Brown
- **Composition:** Bioavailable nutrients, enzymes, growth factors
- **Solubility:** Dispersible in water
- **Packaging:** 1.0–25.0 kg
- **Shelf Life:** 12 months

Handling & Safety

- Avoid contact with skin or eyes
- Use in well-ventilated areas
- Store in a cool, dry, covered space
- Follow MSDS guidelines



With Nutriboost CPNS, you're not just feeding MICROBES—you're driving performance, stability, and sustainability.

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