

TECHNICAL DATA SHEET

Product Name: 3,4-Dimethylpyrazole Phosphate (DMPP) CAS No.: 202842-98-6 Molecular Formula: $C_5H_{11}N_2O_4P$ Molecular Weight: 198.13 g/mol EINECS No.: 424-640-9 EC Number: 202842-98-6

1. Product Description

DMPP is a highly effective nitrification inhibitor used in modern agriculture to enhance nitrogen fertilizer efficiency. It delays the microbial conversion of ammonium (NH_4^+) into nitrate (NO_3^-) , thereby reducing nitrogen loss through leaching and denitrification. This contributes to higher crop yields, better nitrogen utilization, and reduced environmental impact.

2. Typical Specifications

Parameter	Specification
Appearance	White to off-white powder
DMPP Content	≥ 99.0%
Moisture Content	≤ 0.5%
pH (1% solution in water)	6.0–8.0
Water Solubility	Fully soluble
Heavy Metals (Pb)	≤ 20 mg/kg
Arsenic (As)	≤ 2 mg/kg
Melting Point	Approx. 168–173 ℃

3. Mode of Action

DMPP specifically inhibits the activity of *Nitrosomonas* bacteria in soil, thereby slowing the oxidation of ammonium to nitrate. This stabilizes nitrogen in the ammonium form for a longer period, reducing nitrogen losses and enhancing fertilizer efficiency.

4. Applications

Urea, ammonium sulfate, and compound fertilizers (NPK) Liquid fertilizers and urea solutions Controlled release or slow-release fertilizer formulations Suitable for use in crops such as corn, wheat, rice, vegetables, and fruits Jiangsu Khonor Chemicals Co.,Limited Rm 1902 Easey Comm BLDG, 253-261, Hennessy Rd Wanchai Hongkong

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5. Benefits

Increases nitrogen use efficiency (NUE) Reduces nitrate leaching and N₂O emissions Enhances crop yield and quality Extends nitrogen availability in soil Environmentally friendly and safe

6. Packaging & Storage

Packaging	Standard
Packaging Type	25 kg fiber drums or bags
Shelf Life	24 months in original packaging
Storage Condition	Store in a cool, dry, ventilated area, away from sunlight and moisture

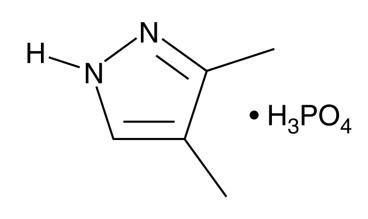
9. Supplier's Note:

Jiangsu Khonor Chemicals Co., Limited provides high-quality, customizable DMPP tailored for global markets.

With **ultrafine powder grades** optimized for **liquid calcium-magnesium supplements**, our product is particularly suited for **teen nutrition** and **advanced formulations**.

Whether you need a specific **Ca:Mg ratio**, **ultrafine mesh**, or **regulatory certification**, we are ready to support your product development and market expansion.





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