



# Nataspen™ New Natamycin for Enhanced Performances

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## COMPANY BRIEFS

Profood International, Inc., is a leading food ingredient distributor in the Midwest.

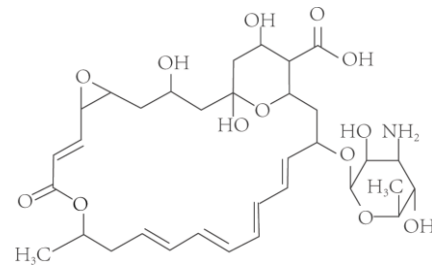
Profood service U.S. Market for the past 16 years

Focus on vitamins, amino acids, antioxidants, preservatives, and texturizers

## NATAMYCIN

- Natamycin is a natural antimycotic ingredient, a purified fermentation product from *Streptomyces natalensis*.
- Commercial Natamycin is an off white to milky yellow powder and has no distinct smell. It has very low solubility in water and most organic solvents.
- The efficacy of Natamycin is determined by its concentration and stability. It's very stable when in crystal form, but it may be affected by the factors such as pH, temperature, light, oxide, heavy metals, etc..

- Molecular formula:** C<sub>33</sub>H<sub>47</sub>NO<sub>13</sub>
- Relative molecular mass:** 665.73
- INS No.:** 235



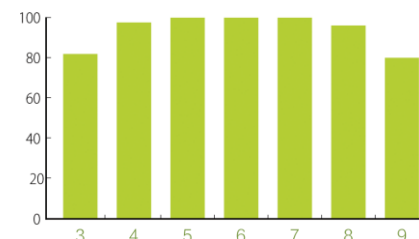
## BENEFITS

- Can inhibit almost all the moulds and yeasts;
- Very small dosage and high efficacy, 10~20ppm natamycin can kill most of moulds and yeasts in food;
- Not affect the natural fermentation inside the foods; No side-effects or cross-resistance;



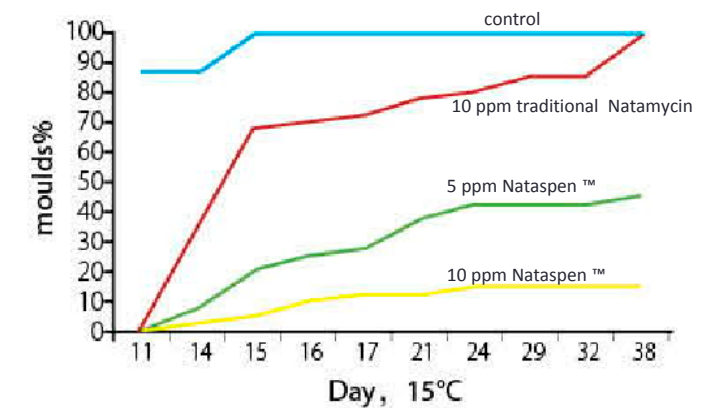
	MIC of Natamycin	MIC of Potassium sorbate
<i>Aspergillus niger</i>	5	500
<i>Fusarium</i>	10	500
<i>Penicillium</i>	5	500
<i>Rhizopus</i>	5	500
Beer yeast	5	500
<i>Saccharomyces cerevisia</i>	1	500

- Natamycin is effective at pH 3-9, making it suitable for acidic, neutral and alkaline foods



## NATASPEN™

- A High performance natamycin product, that is made through novel extraction, and purification process.
- Performance increased from the size and shape of the natamycin new crystals.



- Nataspen™ is able to quickly and evenly dispersed in water to achieve a stable suspension without precipitation or separation over a long period of time.



Nataspen™ High performance Natamycin



Traditional Natamycin

- Nataspen™ suspension has much smaller and more uniform crystals of natamycin. When sprayed on to food surfaces, it is easier to achieve even distribution and complete coverage, therefore, its antifungal protection is more effective.



## COMPARING TO SORBATE

- Natamycin inhibits most yeasts and moulds, including *Leuconostoc*, *Aspergillus*, *Fusarium*, *Cephalosporium*, *Penicillium*, *Cryptococcus* and *Histoplasma capsulatum*. These bacteria can be suppressed with a small dosage of 1-10µg/ml.
- Natamycin is 50~100times the antibacterial efficacy of potassium sorbate.