



Matrix technology:

The new generation vitamin K2 in powder form



vitaMK7[®] Matrix technology

Vitamin K2 market is growing rapidly and brand-owners need to adpat to evolving consumer needs.

- Matrix technology has been developed to ease formulation with other nutrients, especially minerals
- Matrix technology is also a solution for formulation in Functional Food & Beverage, such as Dairy, and specific formats such as Sachets, Gummies or Chewable

why Matrix?

- Carrier organized as a matrix to embed the particles of vitamin K2 MK-7
- Natural protection of vitamin K2 MK-7: No coating, no additive, no additional ingredient
- Gnosis by Lesaffre innovative & proprietary technology

PHYSICAL PROPERTIES

4 main benefits

Improved homogeneity and handling properties of the powder

STABILITY

Facilitated and improved **stability in formulation** (esp. with minerals)

> **B** DISPERSIBILITY Improved dispersibility into liquid



COMPOSITION Short and **unchanged list of ingredients** and no additives

Matrix technology

Focus on stability in formulation and liquid dispersion

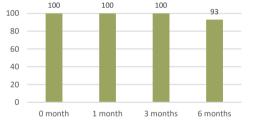
vitaMK7[®] Matrix is achieving best-in-class stability in formulation in tablets with minerals, also facilitating manufacturing under harsh conditions.



Stability of vitaMK7[®] Matrix in formulation with minerals



Tablet with vitamin K2 and CaCO₃



Accelerated test at 40°C, Assay as a % of label claim

Tablet formulation with **Magnesium oxide**



Tablet with vitamin K2 and MgO

Liquid Dispersion

Thanks to Matrix technology, vitaMK7[®] is highly dispersible into liquid, with an homogeneous opaque dispersion and no aggregate.



vitaMK7[®] Matrix in Maltodextrin

vitaMK2

About vitaMK7®

vitaMK7[®] is the optimal vitamin K2 from natural biotransformation: a naturally derived, allergen-free vitamin K2 in the form of MK-7, produced by Gnosis by Lesaffre in its own European manufacturing site through a patented biofermentation process of *Bacillus subtilis* natto.

This is a Business to Business information intended for food / food supplements manufacturers and not for the final consumer. Regulatory & Intellectual property requirements vary by country and applications (including claims). We encourage our customers to check the applicable local laws before launching the product on the market for each country. These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease. A healthy, balanced and diversified diet should fulfill all of our nutritional needs.



Gnosis by Lesaffre - France 137 rue Gabriel Péri 59700 Marcq-en-Baroeul +33 (0) 3 20 81 61 00

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Gnosis by Lesaffre - Italy via Lavoratori Autobianchi, 1 20832 Desio (MB) +39 (0)362 16 70 001



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