Essentials

High quality L-5-Methyltetrahydrofolate calcium powder. Known as L-5-MTHF Ca, it belongs to the folate group of vitamins (Vitamin B9) and it is recognised as the most biologically active and functional form of folic acid.



PRODUCT PROFILE SHEET

Recognised as "Finished" Folate, meaning the body can utilise it straight away without any form of metabolism required, this active form is designed to act as a beneficial nutrient in all health areas where the use of folic acid and supplementation has been recommended. It offers a readily absorbable form of folic acid.

Folic Acid vs L-5-MTHF-Ca

According to science, to become metabolically active, folic acid must be converted by the body to a dihydrofolate form and then to tetrahydrofolate. Tetrahydrofolate is subsequently converted to the biologically active **L-5-Methyltetrahydrofolate** by an enzyme called methylenetetrahydrofolate reductase. However, there are many individuals who have genetic disadvantages in which their methylenetetrahydrofolate reductase enzyme is less active, meaning that they are less efficient in converting folic acid to L-5-Methyltetrahydrofolate.

Calcium salt of L-5 Methyltetrahydrofolate benefits from **very good stability** and, science suggests it is better than folic acid in reducing the potential for masking haematological symptoms of vitamin **B12 deficiency**¹, reducing drug interactions that inhibit dihydrofolate reductase and **overcoming metabolic issues** caused by methylenetetrahydrofolate reductase polymorphism². 5-MTHF has key advantages over synthetic folic acid: it is well absorbed even when gastrointestinal pH is altered, and its bioavailability is not affected by metabolic issues².



Product Advantages

- High Purity
 Min 99.7% L-5-MTHF-Ca
- Suitable for all Health Applications where folic acid is required
- Very Good Stability
 longer shelf life vs Folic Acid
- High Water Solubility
- Bioavailable recognised as "Finished" Folate by the body
- Allowed source for Folic Acid not Novel Food

Research

Vitamin B9 (Folic Acid) is known as a key nutrient for **red blood cell formation** and for **healthy cell growth and function**.

Vitamin B9 is crucial during early **pregnancy**³ to help reduce the risk of **birth defects** of the brain and spine. Vitamin B9 is also used for many other conditions including **depression**^{4,5}, **decline in memory and cognitive skills**⁶⁻⁷, and it may also reduce **blood pressure** and support **cardiovascular health**⁸⁻¹⁰.

Low blood folate can also lead to **anemia**. The type of anemia caused by very low blood folate concentrations is called megaloblastic anemia¹¹. Folic acid supplementation may help manage anemic conditions and can be especially beneficial for older adults, who may also experience depression and memory impairments.

Vitamin B9 has several **EFSA approved Health Claims**, supporting many of the health benefits mentioned above.

Product Safety

Based on the results of the in vitro and in vivo studies, the safe use of L-5-MTHF-Ca as an ingredient in foods is supported $^{\rm 12}$ and has been used in food supplement for long time.

Product Range

LEHVOSS Code	Active Ingredients	Grade	Mesh Size
26002429	Min 99% L-5-MTHF-Ca (*)	Crystalline Powder	100% less than 80 mesh

(*) Typical Value.



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Product Dosage

L-5-MTHF Ca can be treated the same a folic acid when it comes to the dose. The recommended daily intake (RDI) for Folic Acid is 200 micrograms per day.

Women who wish to become pregnant should take 400 micrograms of folic acid daily in order to support development and health of the growing child effectively from an early stage¹³.

Approved Health Claims

 $\mbox{L-5-MTHF-Ca}$ benefits from the same EFSA-approved health claims as Vitamin B9 (Folic Acid).

According to the European Food Safety Authority, Vitamin B9 contributes to:

- Maternal tissue growth during pregnancy
- Amino acid synthesis
- Blood formation
- Homocysteine metabolism
- Psychological function
- Function of the immune system
- Reduction of tiredness and fatigue
- The process of cell division



About



LEHVOSS Nutrition is the European division of the Hamburg-based group, specialising in the sourcing, technical approval, sales and marketing of specialty ingredients for the food supplement, pharma, animal nutrition and functional foods industries.

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