



## The Innovation for Cognitive Performance

- ▶ **Bluenesse**® is an exclusive *Melissa officinalis* extract developed to support cognitive performance.
- ▶ *In vitro* and human studies as well as a phytochemical investigation confirm that **Bluenesse**® supports:
  - ✓ **Alertness / concentration / mental focus**
  - ✓ **Working memory**
  - ✓ **A calm, positive mood**
  - ✓ **Ability to cope with occasional stress**
  - ✓ **Improvement of age-related cognitive function**

Can you imagine going into the kitchen and actually remembering why?

What if you could remember all of your classmates' names at your 50th high school reunion?

Can you imagine staying cool and focused during an exam?

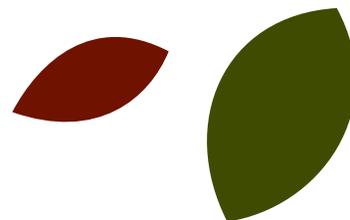
Memory changes can be frustrating, but thanks to research, there are strategies to help protect & sharpen our minds.

- ▶ The 300 mg daily dosage can be incorporated into food supplements, foods and beverages.
- ▶ **Bluenesse**® can be taken on demand - effects are created within one hour of intake and are still measurable after three hours.
- ▶ Vital Solutions' extensive know-how in natural products enabled them to identify a special lemon balm breeding line supporting cognitive effects, particularly alertness and memory.
- ▶ Each batch of **Bluenesse**® undergoes bioassay-guided efficacy testing to confirm cognitive effects – this is a new dimension of quality control.
- ▶ **Bluenesse**® bridges the gap between a traditional European herb and innovative technology.

Bluenesse® is a registered trademark of Vital Solutions GmbH, Germany

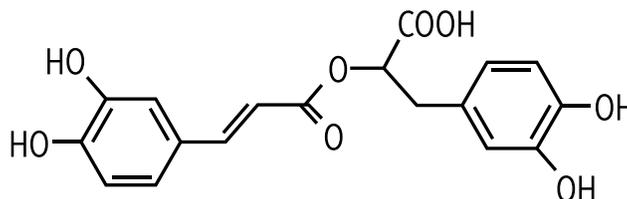
## Product Information

- ▶ **Bluenesse®** is obtained by water extraction out of special breeding lines of *Melissa officinalis* leaves, an annual edible herb native to Europe.
- ▶ *Melissa officinalis* is a member of the family Lamiaceae.
- ▶ Its common names are: Lemon balm (EU, USA); Melisse (Germany).
- ▶ **Bluenesse®** is a proprietary *Melissa officinalis* leaf extract, standardized on **muscarinic M1 receptor affinity** and on **rosmarinic acid**, determined by HPLC.
- ▶ Our modern, state-of-the-art production facilities and GMP-compliant production conditions ensure reproducible quality of the products.
- ▶ **Bluenesse®** has a pleasant taste and is a water-soluble fine beige powder.
- ▶ **Bluenesse®** complies with the highest quality and traceability standards, completed by phytochemical characterization.



## Supports Concepts for:

- ▶ Cognitive performance
- ▶ Healthy aging and stress relief
- ▶ Weight management
- ▶ Health claims supporting blends available on request



### Specifications:

|                                       |  |
|---------------------------------------|--|
| Appearance:                           | Fine beige powder with a characteristic odor |
| Solubility:                           | Freely soluble in 100 g/L in water           |
| Loss on drying:                       | < 5.0%                                       |
| Particle size:                        | 100% < 500µm    80% < 300µm                  |
| Foreign matter:                       | not detected                                 |
| Rosmarinic acid:                      | > 6%   |
| Muscarinic M1 receptor affinity       | yes  |
| Microbiology: Ph. Eur. 7ed Cat. 5.1.4 | complies                                     |
| Pesticides (EC) NO396/2005:           | < 0.01 mg/kg (ppm) according to legislation  |
| Heavy metals (EC) NO1881/2006:        | complies                                     |



A. Scholey, et al., "Anti-Stress Effects of Lemon Balm-Containing Foods," *Nutrients*, 6, 4805-4821 (2014)

A. Scholey, et al., "Investigation of a *Melissa officinalis* special extract on Cognition II, Human study - Lemon balm extract administered in confectionary bars," *Agrofood Industry hi-tech* (2015)