

The influence of the product on the key organisms of the respective body region was examined.

Information about the tested product:

Manufacturer:

Primient Covation LLC
198 Blair Blend Drive
37774 Loudon
USA

Name of the product:

Zemea[®] Propanediol

| | |
|-------------------------|--|
| Product type: | Ingredient |
| Application: | Leave-on |
| Dilution: | 2% (v/v) in PBS |
| Sample received: | 20 March 2025 |
| Test Start: | 01 April 2025 |
| Test End: | 24 April 2025 |
| Test Standard: | MyMicrobiome Standard 21.10 Vaginal |
| Test result: | 1.1 |
| Certification: | granted |

Test description

The MyMicrobiome Standard evaluates the influence of cosmetics, personal care products and pharmaceuticals on microbial key players located at specific skin or mucous membrane sites.

An intact skin microbiome has a fundamental influence on skin health. Products suitable for the intimate are must also be microbiome-friendly and ensure the maintenance of the balance among the vaginal microorganisms of the user.

Every person's microbiome is unique. Each body area, however, harbors a characteristic composition of bacteria, viruses and fungi. The test examines the product's influence on the key organisms typical for each body area and thus offers a standardized procedure.

Various aspects are examined:

The microbial quality of the product.

To be evaluated according to our standard, the product needs to be free of contaminants. This is verified in the microbial quality test.

The influence of the product on the natural, healthy vaginal balance.

The commensal bacterium *Lactobacillus crispatus* is co-cultivated with the pathogenic bacterium *Gardnerella vaginalis*. The co-culture is brought in contact with the vaginal product to be tested, which should not disturb the balance between friendly and harmful bacteria.

The influence of the product on the bacterial diversity of the specific body region.

Each body region is colonized by a certain set of microorganisms. For healthy microbiome, it is particularly important to maintain this biodiversity. The influence of the product on the respective microbial composition of the vagina is examined in the test. The aim is to find as many key organisms as possible after contact with the product.

The influence of the product on the growth behavior of the microbes of the specific body region.

In addition to the diversity of the microorganisms in a specific body area, the growth of the individual key organisms should not be influenced by the product. The key organisms of the vagina are brought into direct and indirect contact with the product and their growth is observed.

Results

The microbiological quality of the product.

The prerequisite for the test for microbial friendliness is the microbiological quality of the product based on DIN ISO 17516. The following table contains the limit values for contaminants that must be observed.

| Types of organisms | Limit values |
|--|-------------------|
| Total aerobic microbial count (TAMC) and total combined yeasts/ moulds count (TYMC) | ≤ 20 cfu*/g or ml |

* colony forming units (cfu)

Results microbiological quality

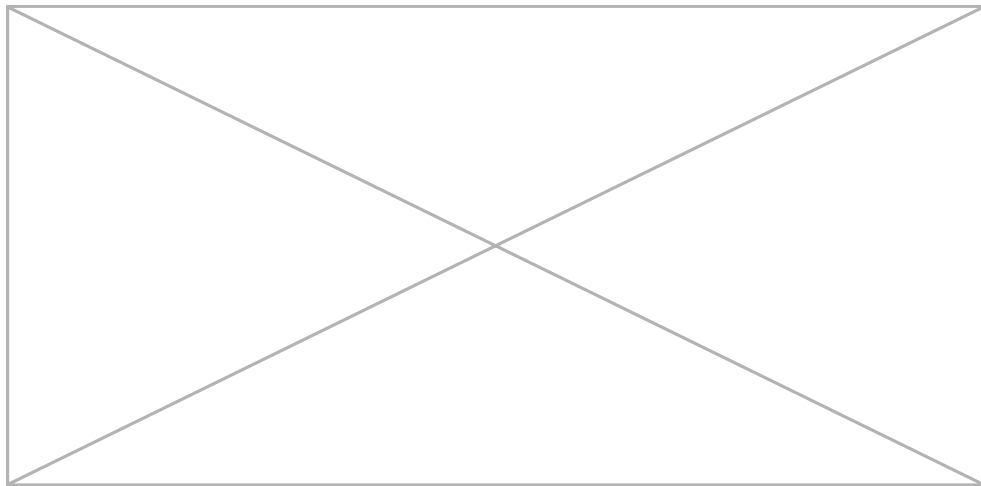
| Parameter | Sample no.: 25.513.21.24 |
|----------------------------|--------------------------|
| TAMC and TYMC [cfu/0,1 ml] | < 20 |

The microbiological quality of the product is fulfilled.

Results

The influence of the product on the natural, healthy vaginal balance.

A co-culture of *L. crispatus* and *G. vaginalis* is incubated with the product for 15 min (rinse-off) or 4h (leave-on). Bacterial counts are determined and the cfu ratio of the two bacteria in the presence of the product is assessed and compared to the control sample (PBS).

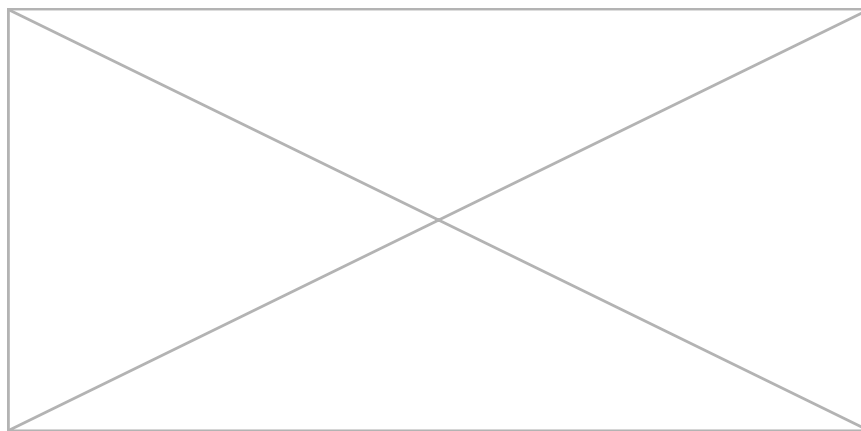


| | cfu/ml | | Ratio Product/ Control | Grade |
|----------------|---------------------|---------------------|---------------------------|------------|
| | <i>G. vaginalis</i> | <i>L. crispatus</i> | | |
| Control | 2300 | 39466.7 | 2.3 | 1.0 |
| Product | 1066.7 | 42500 | | |

Results

The influence of the product on the microbial diversity of the specific body region.

Cultures of the three key organisms present in the vagina are incubated with the product for 15 min (rinse-off) or 4h (leave-on). Bacterial colonies are counted, and the cfu ratios in the presence of the product are calculated in % relative to the control sample (PBS).

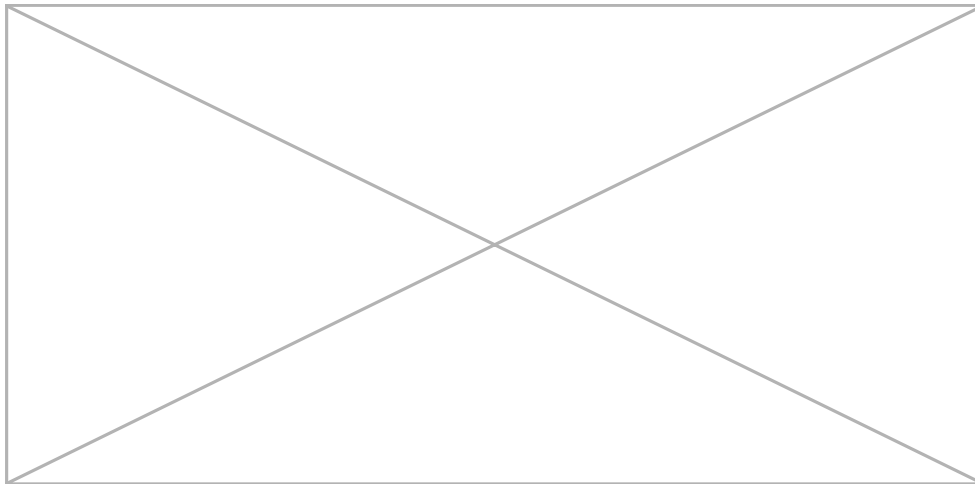


| Key-Microbe | t= | 4h | Rating |
|------------------------|---------|--------|------------|
| | cfu/ml | | |
| <i>L. crispatus</i> | Control | 5966.7 | 1 |
| | Product | 5566.7 | |
| <i>L. gasseri</i> | Control | 60 | 1 |
| | Product | 180 | |
| <i>L. jensenii</i> | Control | 123.3 | 1 |
| | Product | 120 | |
| Overall rating: | | | 1.0 |

Results

The influence of the product on the growth behavior of the microbes of a specific body region – directly.

The influence of the product on the growth of each individual key organism of the vagina is investigated and the cfu ratio in the presence of the product is calculated in % relative to the control sample (PBS). Product contact with microorganisms is direct.

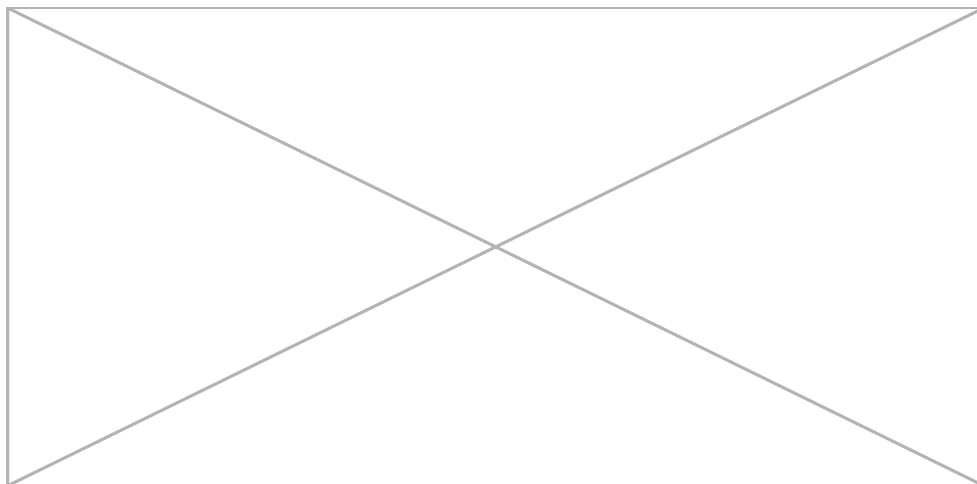


| Key-Microbe | cfu/ml | | Rating |
|------------------------|---------|------|------------|
| <i>L. crispatus</i> | Control | 3000 | 1 |
| | Product | 3000 | |
| <i>L. gasseri</i> | Control | 460 | 1 |
| | Product | 440 | |
| <i>L. jensenii</i> | Control | 59 | 1 |
| | Product | 55.3 | |
| Overall rating: | | | 1.0 |

Results

The influence of the product on the growth behavior of the microbes of the specific body region – indirectly.

The influence of the product on the growth of each individual key organism of the vagina is investigated and the cfu ratio in the presence of the product is calculated in % relative to the control sample (PBS). Product contact with microorganisms is indirect.



| Key-Microbe | cfu/ml | | Rating |
|------------------------|---------|-------|------------|
| <i>L. crispatus</i> | Control | 3000 | 1 |
| | Product | 3000 | |
| <i>L. gasseri</i> | Control | 431.3 | 2 |
| | Product | 398.3 | |
| <i>L. jensenii</i> | Control | 43.5 | 1 |
| | Product | 41 | |
| Overall rating: | | | 1.3 |

Results

The results are evaluated with grades from 1 (one) to 3 (three).

The product has passed if it obtains grades between 1.0 and 2.0.

1.0 – 2.0 = Microbiome-friendly | 2.1 – 3.0 = Microbiome-influencing

| Test | Grade |
|--|------------|
| Balance of the vaginal microbiome | 1.0 |
| Diversity of the corresponding microbiome (x2) | 1.0 |
| Product contact direct (x2) | 1.0 |
| Product contact indirect | 1.3 |
| Overall grade | 1.1 |

With an overall grade of 1.1 the seal „Microbiome-friendly“ is awarded according to MyMicrobiome Standard 21.10 Vaginal.

Place, Date: Balzers, 14 May 2025

Responsible person: Dr. Kristin Neumann

Signature:

