

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

Information about the tested product:

Manufacturer:

True Botanicals
1 Lovell Avenue
CA 94941 Mill Valley
USA

Name of the product:

Chebula the Hand Cream

Product type:	Final product
Application:	Leave-on
Dilution:	No
Sample received:	07 November 2024
Test Start:	03 December 2024
Test End:	11 December 2024
Test Standard:	MyMicrobiome Standard 18.11 Face / Body
Test result:	2.0
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. Skin-friendly products must also be microbiome-friendly and ensure the maintenance of the balance among the skin 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 skin 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 skin balance.

The skin-commensal bacterium *Staphylococcus epidermidis* produces antimicrobial peptides (so-called bacteriocins) and regulates skin pH, which keeps harmful microorganisms such as *Staphylococcus aureus* in check. The product should not disturb the balance between friendly and harmful bacteria. This sensitive balance is investigated in conjunction with the product.

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 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 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

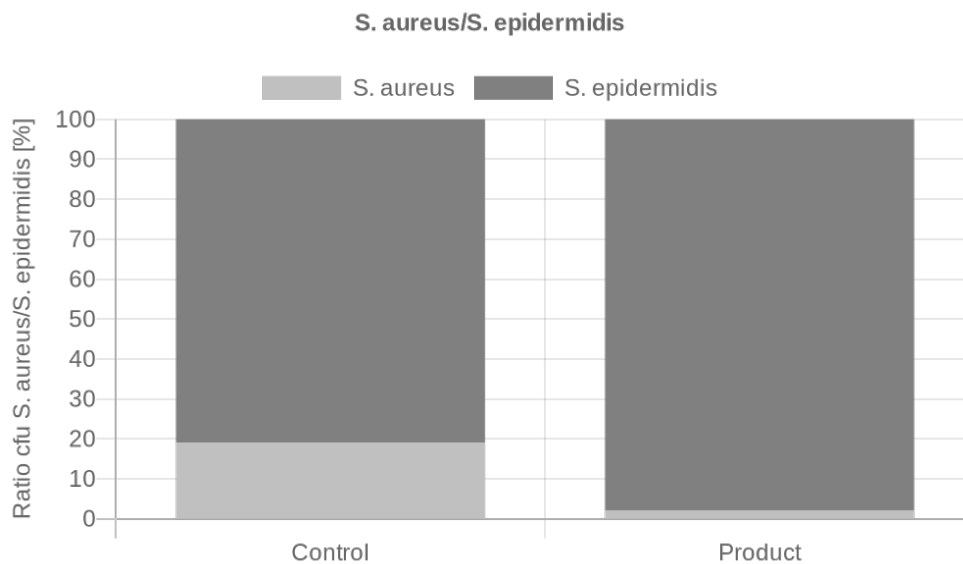
Parameter	Sample no.: 24.954.18.1
TAMC and TYMC [cfu/0,1 ml]	< 20

The microbiological quality of the product is fulfilled.

Results

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

A co-culture of *S. epidermidis* and *S. aureus* is incubated with the product for 15 min (rinse-off) or 4h (leave-on). Bacterial counts are determined, the ratio of the two microbes to each other is assessed and compared to the control sample (PBS).

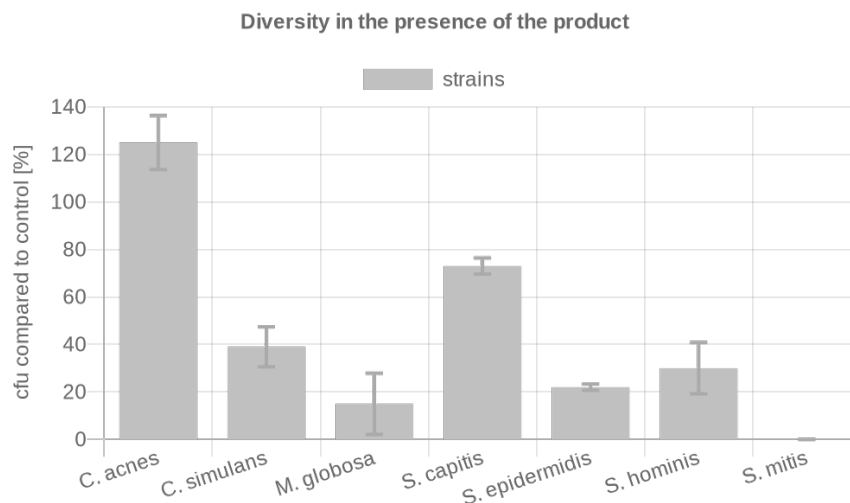


	cfu/ml		Ratio Product/ Control	Grade
	<i>S. aureus</i>	<i>S. epidermidis</i>		
Control	2111.7	9108.3	14.4	1.0
Product	78.4	4855		

Results – SEBACEOUS SKIN –

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

A co-culture of key organisms of the specific body region is incubated with the product for 15 min (rinse-off) or 4h (leave-on). Bacterial colonies are counted, and the ratio of the cfu in the presence of the product compared to the control (PBS) is determined.

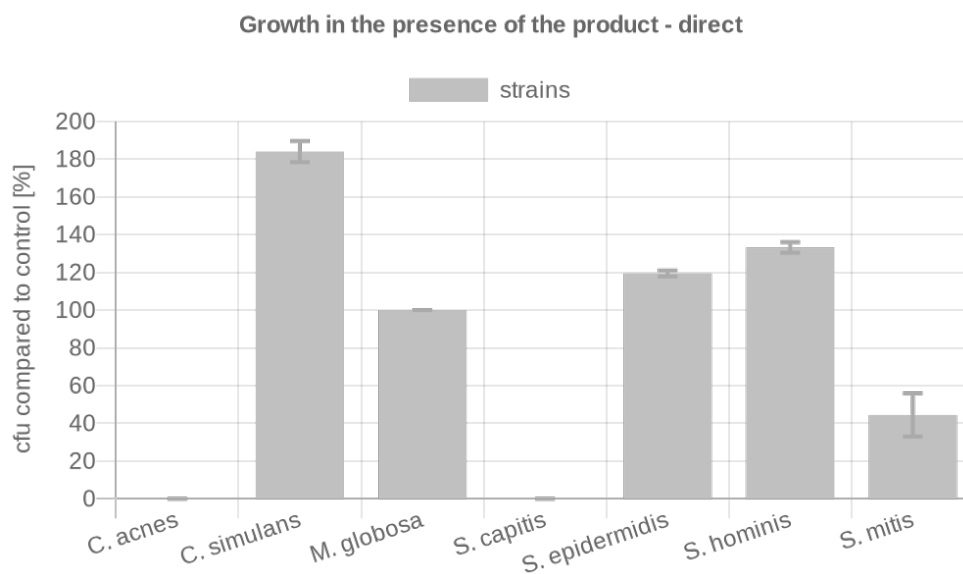


Key-Microbe	t=	4h	Rating
	cfu/ml		
<i>C. acnes</i>	Control	346.7	1
	Product	435	
<i>C. simulans</i>	Control	3168.3	3
	Product	1246	
<i>M. globosa</i>	Control	7500	3
	Product	1100	
<i>S. capitis</i>	Control	1420	2
	Product	1043.3	
<i>S. epidermidis</i>	Control	2473.3	3
	Product	535	
<i>S. hominis</i>	Control	436.7	3
	Product	130	
<i>S. mitis</i>	Control	200	3
	Product	0	
Overall rating:			2.6

Results – SEBACEOUS SKIN –

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 specific body region is investigated and the ratio of the cfu in the presence of the product is calculated in % relative to the control sample (PBS). Product contact with microorganisms is direct.

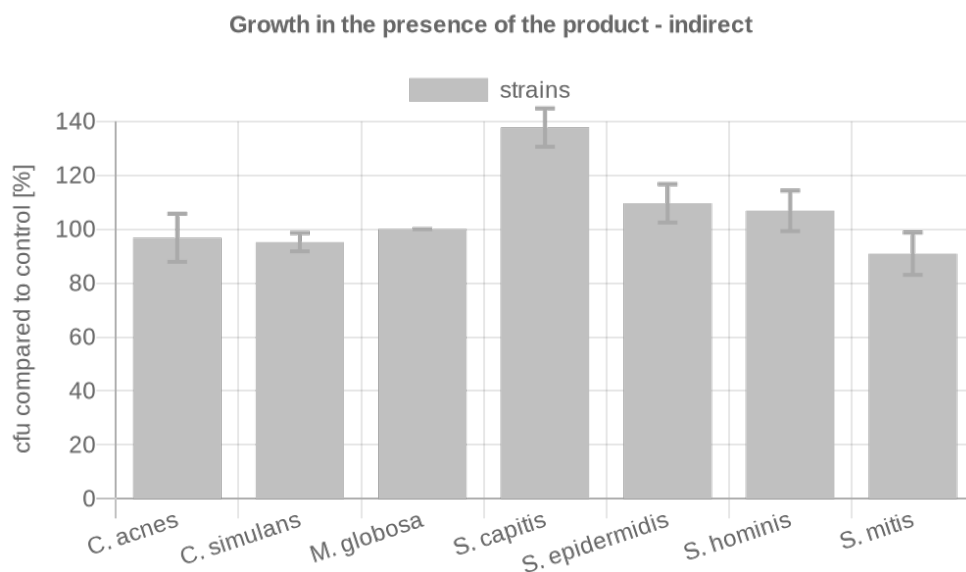


Key-Microbe	cfu/ml		Rating
<i>C. acnes</i>	Control	254.3	3
	Product	0	
<i>C. simulans</i>	Control	573.7	3
	Product	1055.7	
<i>M. globosa confluence</i>	Control	100	1
	Product	100	
<i>S. capitis</i>	Control	1070.7	3
	Product	0	
<i>S. epidermidis</i>	Control	1227.7	1
	Product	1466	
<i>S. hominis</i>	Control	518.7	2
	Product	690.7	
<i>S. mitis</i>	Control	112.5	3
	Product	50	
Overall rating:			2.3

Results – SEBACEOUS SKIN –

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 specific body region is investigated and the ratio of the cfu in the presence of the product is calculated in % relative to the control sample (PBS). Product contact with microorganisms is indirect.

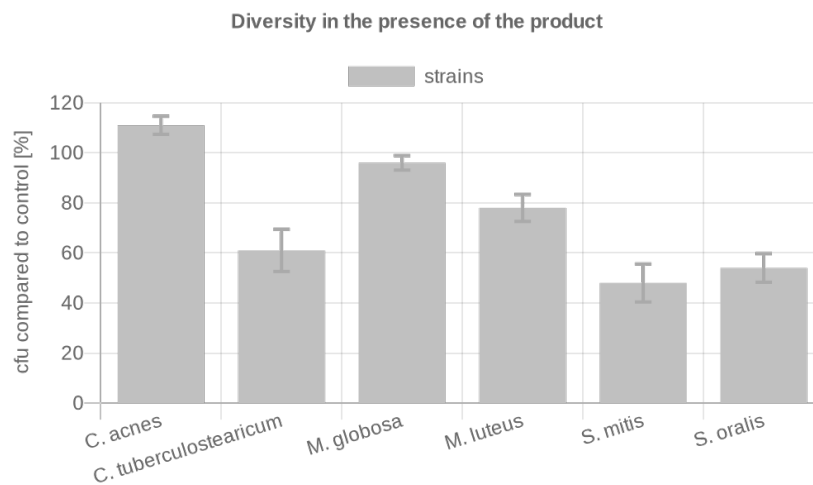


Key-Microbe	cfu/ml		Rating
	Control	Product	
C. acnes	Control	187	1
	Product	181	
C. simulans	Control	386.3	1
	Product	367.7	
M. globosa confluence	Control	100	1
	Product	100	
S. capitis	Control	272.3	2
	Product	375	
S. epidermidis	Control	290.3	1
	Product	318.3	
S. hominis	Control	555	1
	Product	592.7	
S. mitis	Control	618.7	2
	Product	562.7	
Overall rating:			1.3

Results – DRY SKIN –

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

A co-culture of key organisms of the specific body region is incubated with the product for t = 15 min (rinse-off) or 4h (leave-on). The ratio of the microbes compared to the control (PBS) is determined.



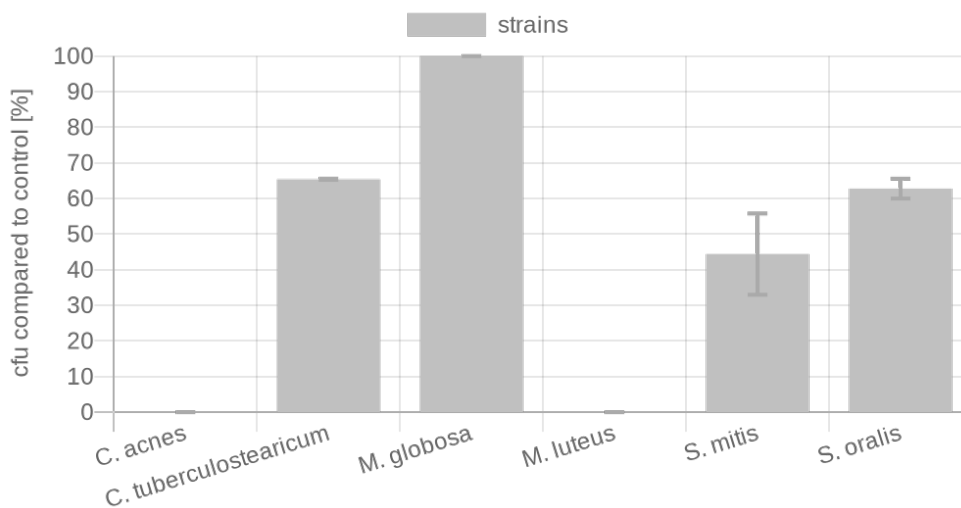
Key-Microbe	t=	4h	Rating
	cfu/ml		
<i>C. acnes</i>	Control	660	1
	Product	730	
<i>C. tuberculostearicum</i>	Control	140	2
	Product	85	
<i>M. globosa confluence</i>	Control	4153,3	1
	Product	3973,3	
<i>M. luteus</i>	Control	1090	2
	Product	850	
<i>S. mitis</i>	Control	160	3
	Product	76,7	
<i>S. oralis</i>	Control	2930	3
	Product	1576,7	
Overall rating:			2.0

Results – DRY SKIN –

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 specific body region is investigated and the ratio of the cfu in the presence of the product is calculated in % relative to the control sample (PBS). Product contact with microorganisms is direct.

Growth in the presence of the product - direct

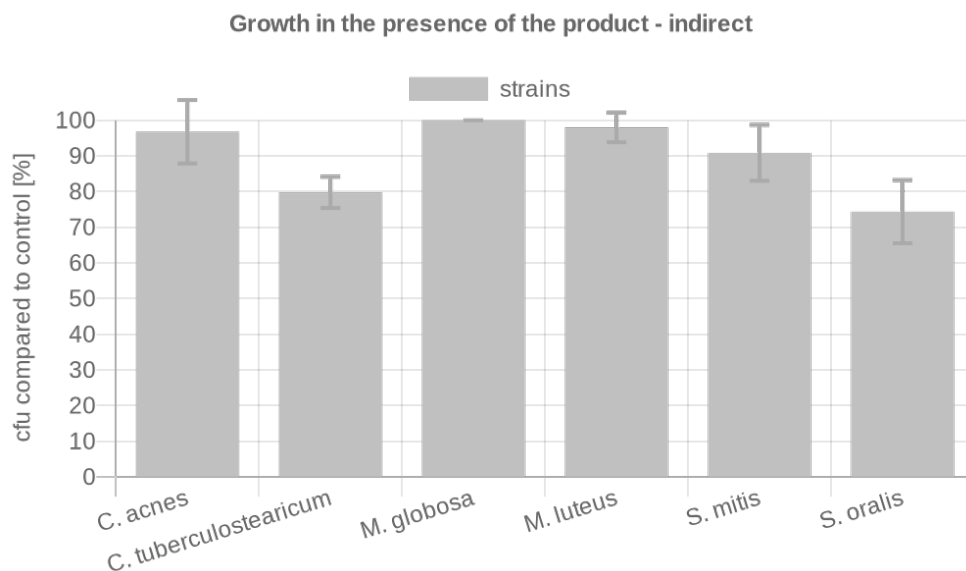


Key-Microbe	cfu/ml		Rating
<i>C. acnes</i>	Control	254.3	3
	Product	0	
<i>C. tuberculostrictaricum</i>	Control	2396.5	2
	Product	1566.5	
<i>M. globosa</i>	Control	100	1
	Product	100	
<i>M. luteus</i>	Control	501.3	3
	Product	0	
<i>S. mitis</i>	Control	112.5	3
	Product	50	
<i>S. oralis</i>	Control	1368.7	3
	Product	860	
Overall rating:			2.5

Results – DRY SKIN –

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 specific body region is investigated and the ratio of the cfu 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
C. acnes	Control	187	1
	Product	181	
C. tuberculoostearicum	Control	2031	2
	Product	1621.7	
M. globosa	Control	100	1
	Product	100	
M. luteus	Control	321.3	1
	Product	315	
S. mitis	Control	618.7	2
	Product	562.7	
S. oralis	Control	1079.7	2
	Product	803	
Overall rating:			1.5

Results

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

The product has passed if it obtains an overall grade between 1.0 and 2.0.

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

Test	Grade
Balance of the skin microbiome	1.0
Diversity of the corresponding skin microbiome (sebaceous, x2)	2.6
Diversity of the corresponding skin microbiome (dry, x2)	2.0
Skin-product contact direct (sebaceous, x2)	2.3
Skin-product contact direct (dry, x2)	2.5
Skin-product contact indirect (sebaceous)	1.3
Skin-product contact indirect (dry)	1.5
Overall grade	2.0

With an overall grade of 2.0 the seal „Microbiome-friendly“ is awarded according to MyMicrobiome Standard 18.11 Face / Body.

Place, Date: Hauptwil, 15 July 2025

Responsible person: Dr. Kristin Neumann

Signature:

