

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

Information about the tested product:

Manufacturer: True Botanicals 1 Lovell Avenue Mill Valley, CA 94941 USA

Name of the product: Renew Pure Radiance Oil

Product class:

- Face / Eyes MyMicrobiome Standard 18.10
- Lips
  MyMicrobiome Standard 18.10
- Body / Neck / Chest / Hands
  MyMicrobiome Standard 18.10
- Back
  MyMicrobiome Standard 18.10
- Bottom / Thighs
  MyMicrobiome Standard 18.10
- Auxiliary vault
  MyMicrobiome Standard 18.10

- 🔘 Scalp
- MyMicrobiome Standard 19.10
- Infant skin
  MyMicrobiome Standard 20.10
- Vaginal tract
  MyMicrobiome Standard 21.10
- Feet
  MyMicrobiome Standard 22.10
  Mouth
- Mouth
  MyMicrobiome Standard 23.10
- Nasal mucosa
  MyMicrobiome Standard 24.10

Sample receipt:August 12, 2021Test date/period:August 13 - October 11, 2021

Test result:1.5Approved yes/no:yes; October 11th 2021





Test description

The MyMicrobiome Standard evaluates cosmetic and personal care products, that encounter the skin or mucous membrane, in terms of their influence on the microbiome located at a specific body site.

An intact skin microbiome has a fundamental influence on skin health. Products which are to be skin-friendly must also be Microbiome-friendly in order not to unbalance the skin of the user.

The MyMicrobiome Standard evaluates the influence of cosmetic and personal care products on the microbial key players of a specific skin or mucous membrane area. The human microbiome is very individual from person to person.

Each area, however, harbors a characteristic composition of bacteria, viruses and fungi. The test examines the products 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.

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

The skin-commensal bacterium *Staphylococcus epidermidis* keeps the skin with antimicrobial peptides (socalled bacteriocins) and pH adjustments healthy and keeps skin-harmful germs such as *Staphylococcus aureus* in check. The product should not disturb this balance between skin-friendly and skin-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 microbial composition. For a healthy skin it is particularly important to maintain this biodiversity. The influence of the product on the respective microbial mixture 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 specific microbiome, the growth or number of different key organisms should not be influenced by the product. This is investigated in a skin-product contact model. The key organisms are brought into direct and indirect contact with the product and their growth is observed.





### Results

### The microbial quality of the product.

The prerequisite for the test for microbial friendliness is the microbiological quality of the product. The following table contains the limit values that must be observed.

Types of organisms	Limit values		
	Products specially designed for children under 3 years, eye area or mucous-skins	Other products	
Total counts mesophilic, aerobic microorganisms (bacteria, yeasts, molds, (TAMC and TYMC))	≤ 1 x 10 <sup>2</sup> cfu/g or ml <sup>a</sup>	$\leq$ 1 x 10 <sup>3</sup> cfu/g or ml <sup>b</sup>	
Escherichia coli	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml	
Pseudomonas aeruginosa	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml	
Staphylococcus aureus	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml	
Candida albicans	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml	

a >200 cfu/g or ml, b >2000 cfu/g or ml

Results Microbiological quality: Determination of TAMC, TYMC, absence of *E. coli*, *P. aeruginos*a and *S. aureus*.

Parameter	Sample no.: 211.011.2
TAMC [cfu/0,1 ml]	< 1,0E+01
TYMC (incl. Candida albicans) [in 0,1 ml]	negative
Escherichia coli [in 0,1 ml]	negative
Pseudomonas aeruginosa [in 0,1 ml]	negative
Staphylococcus aureus [in 0,1 ml]	negative

The microbiological quality of the product according to DIN EN ISO 17516 is fulfilled.



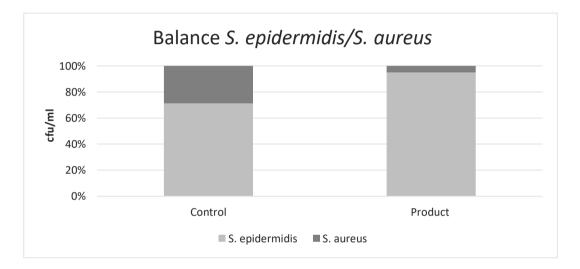


#### Results

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. The ratio of the two microbes to each other is determined.

Determination of the bacterial count at time t = 4 h.



	cfu/ml		Ratio Product/	Crede
	S. epidermidis	S. aureus	Control	Grade
Control	1.1E+02	4.3E+01	7.7	1.0
Product	8.2E+02	4.3E+01	7.7	1.0

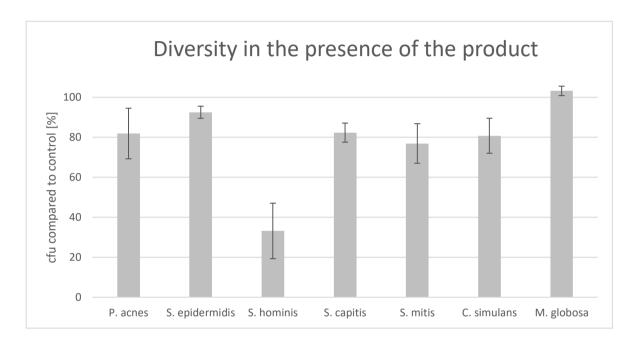




### Results - SEBACEOUS SKIN -

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 4 h. The ratio of the bacteria compared to the control (PBS) is determined.



Key-Microbe	t=	4 h	Rating
	cfu	cfu/ml	
0	Control	2.1E+03	- 2
P. acnes	Product	1.7E+03	Z
C onidonnidio	Control	3.6E+03	- 1
S. epidermidis	Product	3.3E+03	Ţ
S. hominis	Control	1.0E+03	- 3
S. nominis	Product	3.3E+02	3
S. capitis	Control	1.0E+03	- 2
	Product	8.5E+02	2
S. mitis	Control	3.7E+03	2
	Product	2.8E+03	
C simulans	Control	1.4E+03	2
C. simulans	Product	1.1E+03	
M. globosa	Control	6.2E+02	1
	Product	6.4E+02	1
Overall rating:			1.9

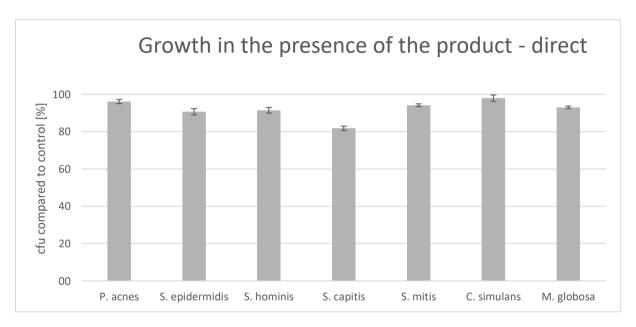




Results - SEBACEOUS SKIN -

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

The influence of the product on the growth of each individual microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). Product contact with the microorganisms is directly.



Key-Microbe	cfu /Plate		Rating
P. acnes	Control	1286.7	1
	Product	1237.3	L L
C. anidarmidia	Control	529.3	2
S. epidermidis	Product	480.0	2
S hominic	Control	609.3	2
S. hominis	Product	557.3	2
S. capitis	Control	880.0	2
	Product	720.0	
S. mitis	Control	1416.0	2
	Product	1333.3	
C. simulans	Control	590.7	1
	Product	578.7	
M. globosa	Control	1268.0	2
	Product	1180.0	2
Overall rating:			1.7

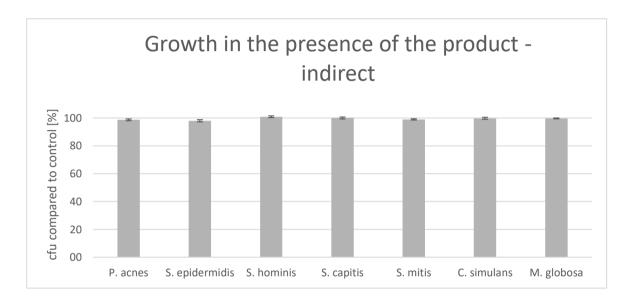




Results - SEBACEOUS SKIN -

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 microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). The product contact to the microorganisms is indirect.



Key-Microbe	cfu /Plate		Rating
P. acnes	Control	1285.3	1
	Product	1268.0	T
5 onidormidic	Control	526.7	4
S. epidermidis	Product	516.0	1
S. hominis	Control	618.7	
S. nominis	Product	624.0	1
C capitic	Control	886.7	1
S. capitis	Product	886.7	
C mitic	Control	1421.3	1
S. mitis	Product	1406.7	
C. simulans	Control	577.3	1
	Product	576.0	
M. globosa	Control	1268.0	1
	Product	1264.0	Ť
Overall rating:			1.0





### Results

The results are evaluated with grades from 1 (one) to 3 (three). If the product shows no or positive influence to the above-mentioned aspects, a grade of 1 is awarded respectively.

If only a very weak negative influence can be detected in the tests, the grade 2 is awarded and in case of a clearly negative influence, the product receives the grade 3.

The product has passed up to grade 2.0.

Here the grade means

#### 1.0 - 2.0 = Microbiome-friendly; 2.1 - 3.0 = Microbiome-damaging.

Test	Grade
Balance of the skin microbiome	1.0
Diversity of the corresponding skin microbiome (x2)	1.9
Skin-product contact direct (x2)	1.7
Skin-product contact indirect	1.0
Overall grade	1.5

With an overall grade of 1.5 the seal "Microbiome-friendly" is awarded according to MyMicrobiome Standard 18.10.

Place, Date:	Balzers, October 11 <sup>th</sup> , 2021
Responsible person:	Dr. Kristin Neumann

R. Nerman



Signature: