MyMicrobiome Standard

Test report no.: 231.0T0.9

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

Information about the tested product:

Manufacturer:
Nerra Inc.
228 Park Avenue South
10003 New York
USA
Name of the product:
Exfoliating glove 150D (black)

Product type:

- ✕ Final Product
- ○ Fibre

Application:

- ✕ Short body contact
- ○ Long body contact

Standard:

- ✕ Face/Lips
  MyMicrobiome Standard 38.10
- ✕ Body / Neck / Chest / Hands
  MyMicrobiome Standard 38.11
- ✕ Back
  MyMicrobiome Standard 38.10
- ✕ Bottom / Thighs
  MyMicrobiome Standard 38.10
- ○ Axillary vault
  MyMicrobiome Standard 38.12
- ○ Scalp
  MyMicrobiome Standard 39.10
- ○ Infant skin
  MyMicrobiome Standard 40.10
- ○ Vaginal tract
  MyMicrobiome Standard 41.10
- ○ Feet
  MyMicrobiome Standard 42.10
- ○ Mouth
  MyMicrobiome Standard 43.10
- ○ Nose
  MyMicrobiome Standard 44.10

Sample receipt: 19 July 2023
Test period: 09 August 2023 – 23 October 2023

Test result: 1.5
Approved yes/no: yes

MyMicrobiome Aktiengesellschaft · Alte Churerstrasse 45 · FL-9496 Balzers
Tel.: +423 384 18 85 · Fax: +423 384 18 86 · Mail: info@microbiome-friendly.com · microbiome-friendly.com
Bank details: UBS Switzerland AG · BIC UBSWCHZH80A · IBAN CH43 0025 4254 2099 8560 B

MyMicrobiome Standard

Test report no.: 231.0T0.9

Test description

The MyMicrobiome Standard evaluates textile 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 textile 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 influence of the product on the natural, healthy skin balance.

The skin-commensal bacterium *Staphylococcus epidermidi*s keeps the skin with antimicrobial peptides (so-called 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.

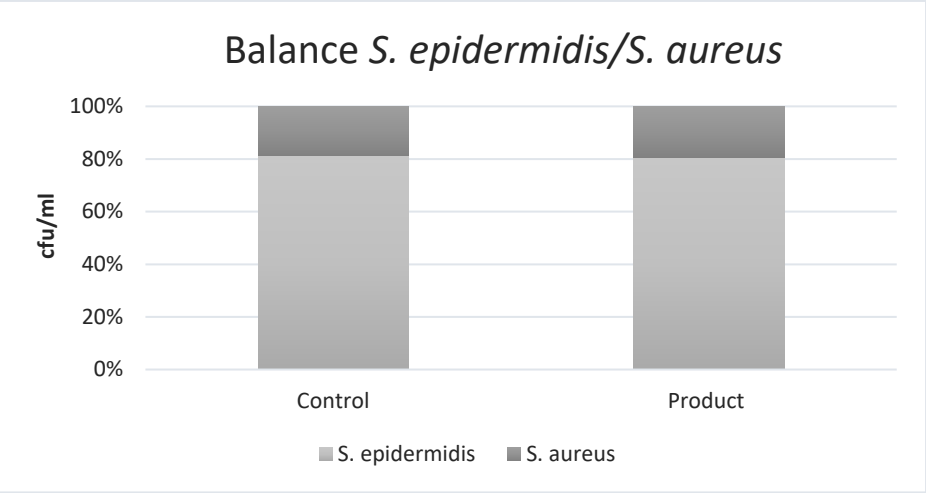
In addition to the diversity of the specific microbiome, the growth or number of different key organisms should not be influenced by the product. This is investigated in a skin-product contact model. The key organisms are brought into direct and indirect contact with the product and their growth is observed.

Results

The 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 = 15 min (short body contact) or 4h (long body contact).

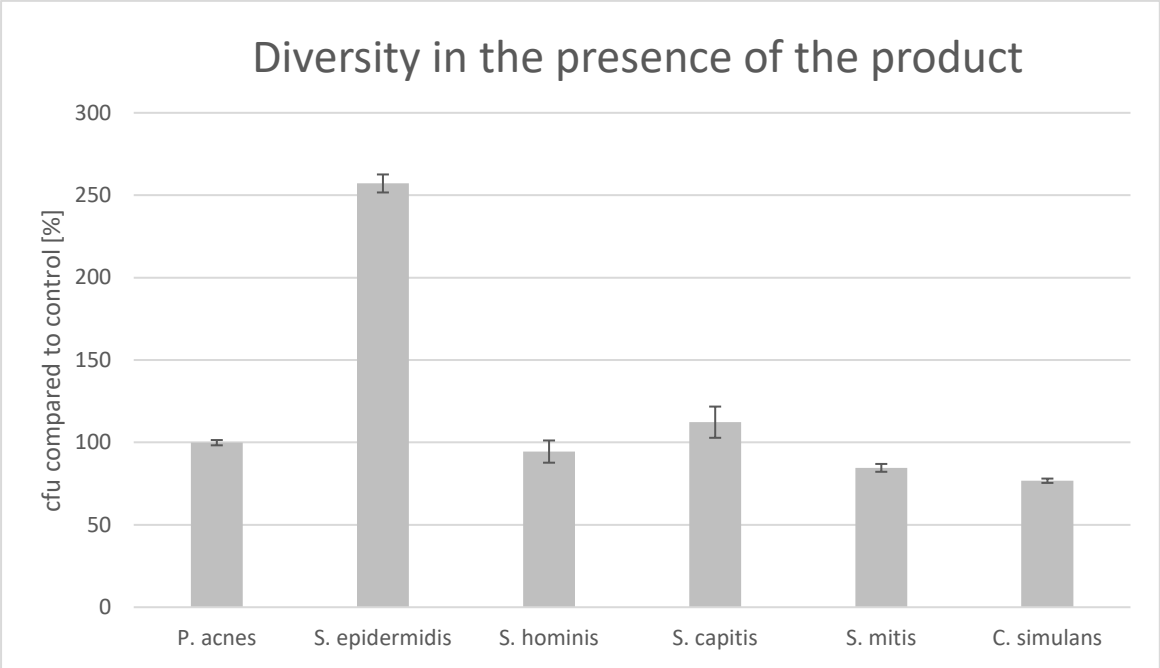


	cfu/ml		Ratio Product/ Control	Grade
	S. epidermidis	***S. aureus***		
Control	4.1E+03	9.5E+02	1.0	1.0
Product	2.9E+03	7.0E+02		

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 t = 15 min (short body contact) or 4h (long body contact). The ratio of the bacteria compared to the control (no product) is determined.

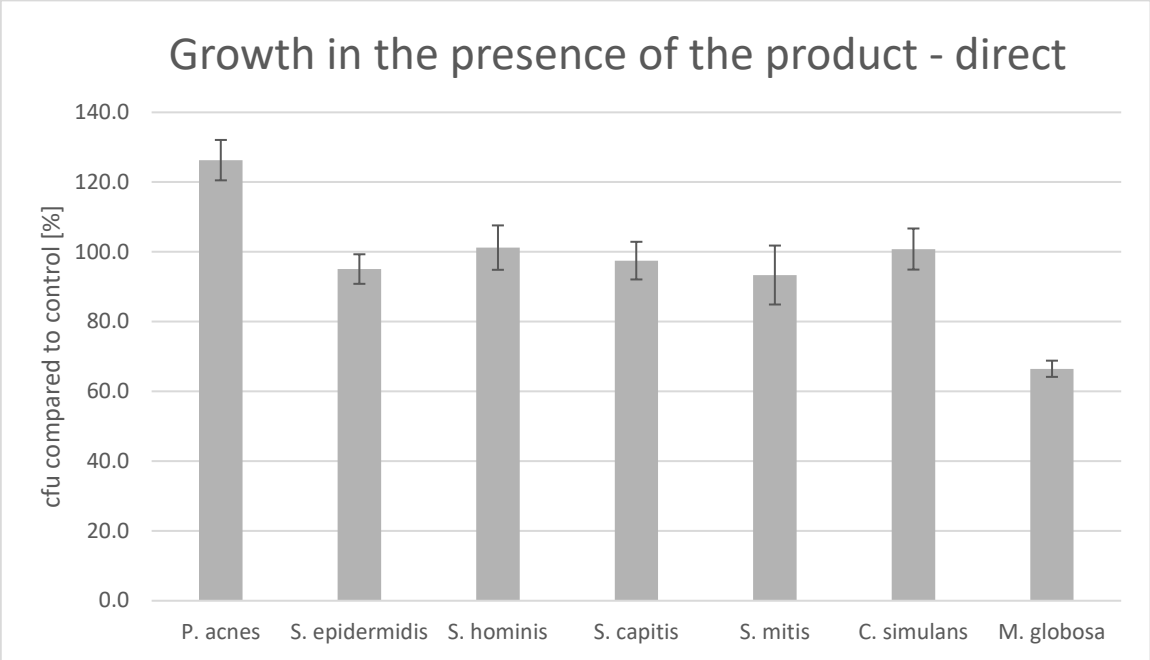


Key-Microbe	t=	15 min	Rating
	cfu/ml		
P. acnes	Control	1.1E+03	1
	Product	1.1E+03	
S. epidermidis	Control	4.7E+02	2
	Product	1.2E+03	
S. hominis	Control	2.4E+02	1
	Product	2.3E+02	
S. capitis	Control	1.9E+02	1
	Product	2.1E+02	
S. mitis	Control	9.9E+02	2
	Product	8.4E+02	
C. simulans	Control	8.6E+02	2
	Product	6.6E+02	
Overall rating:			1.5

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 (no product). Product contact with the microorganisms is direct.

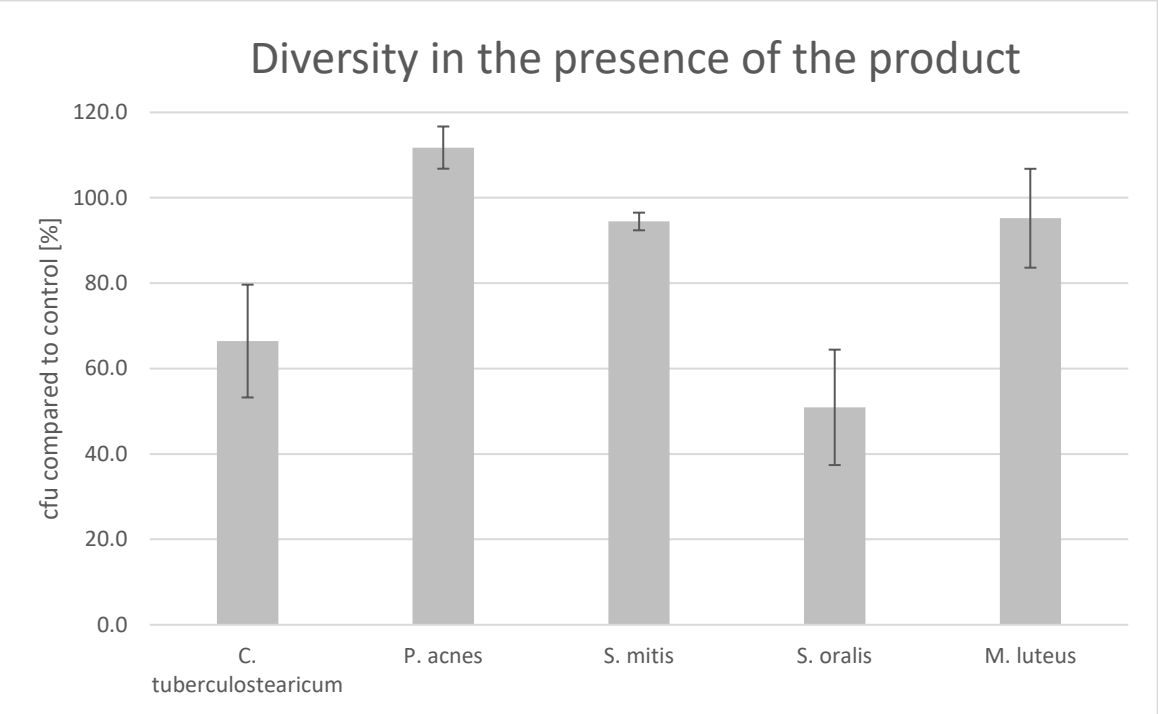


Key-Microbe	cfu /Plate		Rating
P. acnes	Control	102.7	1
	Product	129.7	
S. epidermidis	Control	189.7	1
	Product	180.3	
S. hominis	Control	108.7	1
	Product	110.0	
S. capitis	Control	199.7	1
	Product	194.7	
S. mitis	Control	211.0	2
	Product	197.0	
C. simulans	Control	245.3	1
	Product	247.3	
M. globosa	Control	64.7	2
	Product	43.0	
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 (short body contact) or 4h (long body contact). The ratio of the microbes compared to the control (no product) is determined.

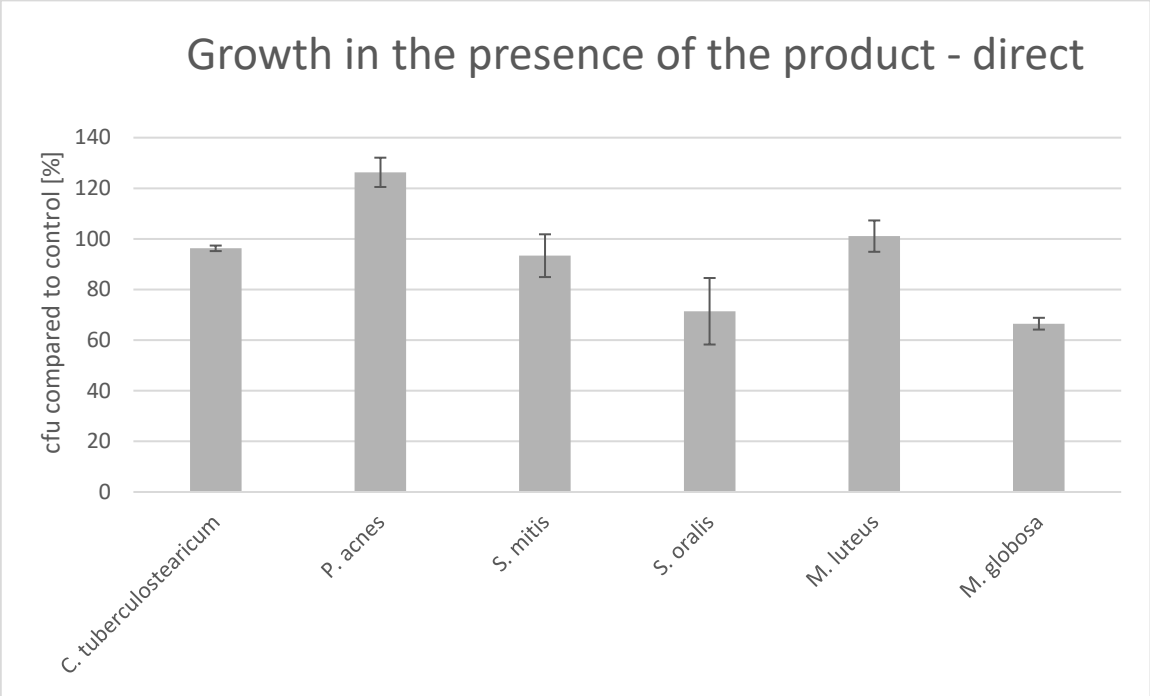


Key-Microbe	t=	15 min	Rating
	cfu/ml		
C. tuberculostearicum	Control	2.5E+03	2
	Product	1.7E+03	
P. acnes	Control	5.5E+03	1
	Product	6.2E+03	
S. mitis	Control	1.4E+04	2
	Product	1.3E+04	
S. oralis	Control	3.6E+03	3
	Product	1.9E+03	
M. luteus	Control	2.2E+03	1
	Product	2.1E+03	
Overall rating:			1.8

Results – DRY 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 (no product). Product contact with the microorganisms is directly.



Key-Microbe	cfu /Plate		Rating
C. tuberculostearicum	Control	1001.3	1
	Product	964.0	
P. acnes	Control	102.7	1
	Product	129.7	
S. mitis	Control	211.0	2
	Product	197.0	
S. oralis	Control	204.0	2
	Product	145.7	
M. luteus	Control	336.0	1
	Product	339.7	
M. globosa	Control	64.7	2
	Product	43.0	
Overall rating:			1.5

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 influence can be detected in the tests, the grade 2 is awarded and in case of a significant influence, the product receives the grade 3.

A product passes up to grade 2.0.

Here the grade means

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)	1.5
Diversity of the corresponding skin microbiome (dry, x2)	1.8
Skin-product contact direct (sebaceous, x2)	1.3
Skin-product contact direct (dry, x2)	1.5
Overall grade	**1.5**

With an overall grade of 1.5 the seal „Microbiome-friendly“ is awarded according to MyMicrobiome Standard 38.10-11.

Place, Date: Balzers, 24 October 2023

Responsible person: Dr. Kristin Neumann

Signature: