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

Information about the tested product:

Manufacturer:
Dow Silicones Corporation
2200 West Salzburg Road
MI 48611 Auburn
USA

Name of the product:
DOWSIL™ 200 Silicone Fluid 6 cSt

Product type:	Ingredient
Application:	Leave-on
Dilution:	85%
Sample received:	01 June 2023
Test Start:	01 June 2023
Test End:	04 July 2023
Test Standard:	**MyMicrobiome Standard 18.11 Face / Body**
Test result:	**1.8**
Certification:	granted

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 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 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 10^2 cfu/g or ml[a]	≤ 1 x 10^3 cfu/g or ml[b]
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.*

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

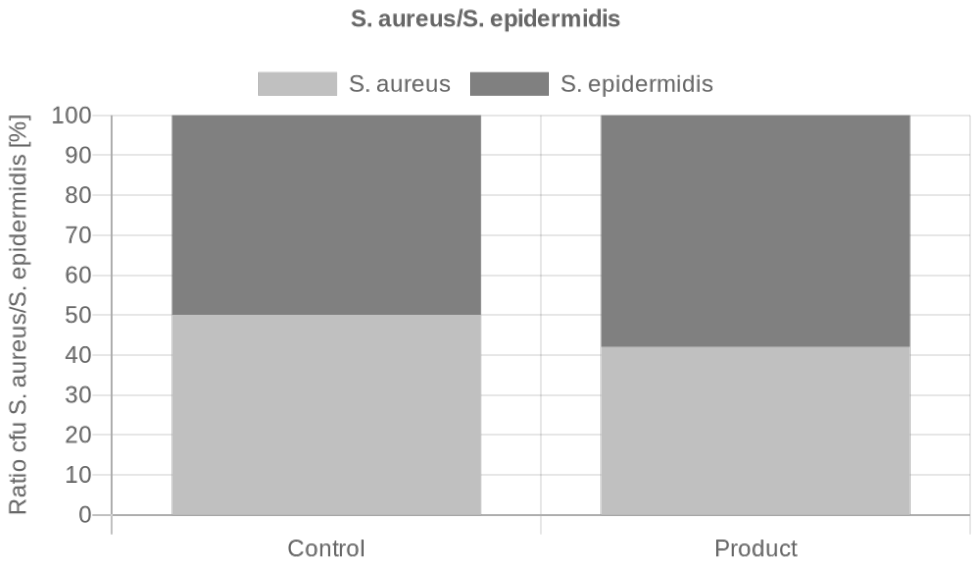
Parameter	Sample no.: 24.866.18.1
TAMC [cfu/0,1 ml]	< 1,0E+01
TYMC (incl. *Candida albicans*) [in 0,1 ml]	negative
***Escherichia coli* [in 0,1 ml]**	negative
***Pseudomonas aeruginosa* [in 0,1 ml]**	negative
***Staphylococcus aureus* [in 0,1 ml]**	negative

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 (rinse-off) or 4h (leave-on).

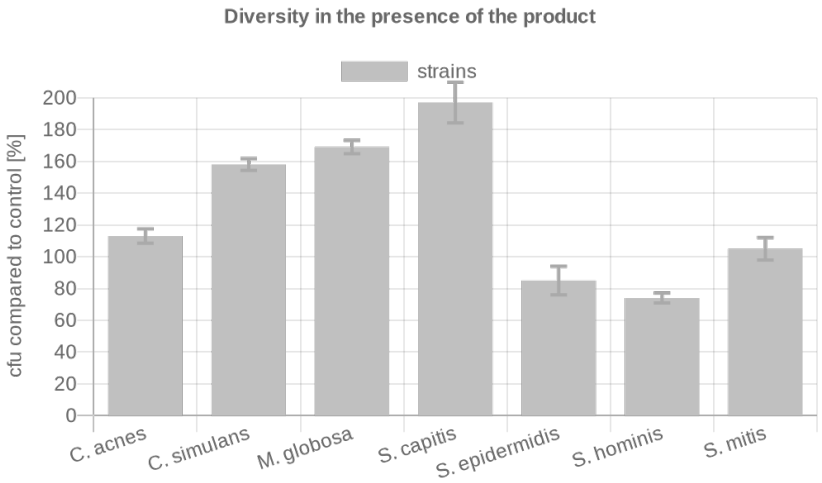


	cfu/ml		Ratio Product/ Control	Grade
	S. aureus	***S. epidermidis***		
Control	1936.7	1903.3	1.4	**1.0**
Product	2246.7	3126.7		

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 (rinse-off) or 4h (leave-on). The ratio of the microbes compared to the control (PBS) is determined.

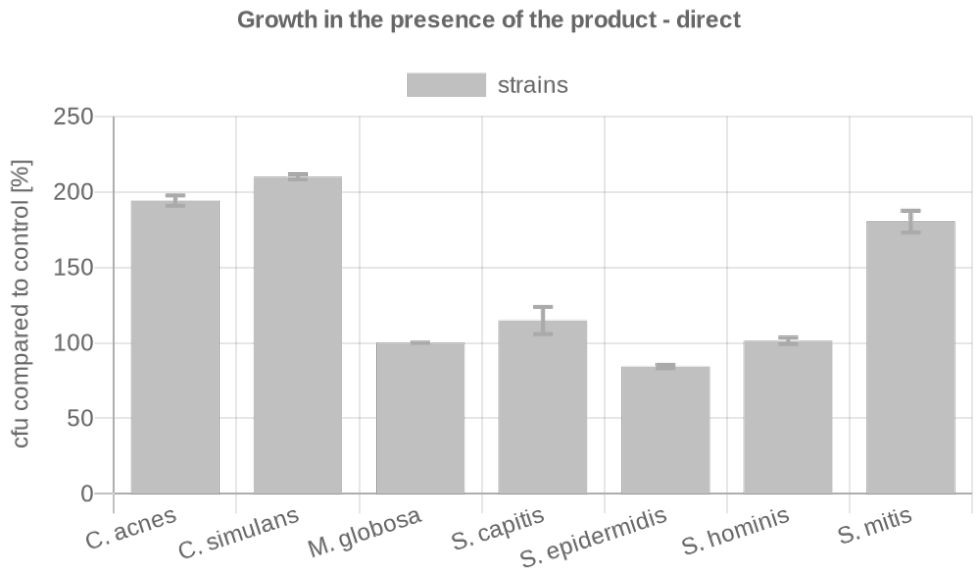


Key-Microbe	t=	4h	Rating
	cfu/ml		
C. acnes	Control	273.3	1
	Product	310	
C. simulans	Control	2400	2
	Product	3800	
M. globosa	Control	7933.3	3
	Product	13400	
S. capitis	Control	1000	3
	Product	1966.7	
S. epidermidis	Control	5233.3	2
	Product	4466.7	
S. hominis	Control	3033.3	2
	Product	2250	
S. mitis	Control	1900	1
	Product	2000	
Overall rating:			**2.0**

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/ml		Rating
C. acnes	Control	333.3	3
	Product	647.3	
C. simulans	Control	331	3
	Product	694.7	
M. globosa confluence	Control	100	1
	Product	100	
S. capitis	Control	209	1
	Product	240	
S. epidermidis	Control	515	2
	Product	434.3	
S. hominis	Control	558.3	1
	Product	565.7	
S. mitis	Control	1332	3
	Product	2401.7	
Overall rating:			**2.0**

Results – SEBACEOUS SKIN -

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

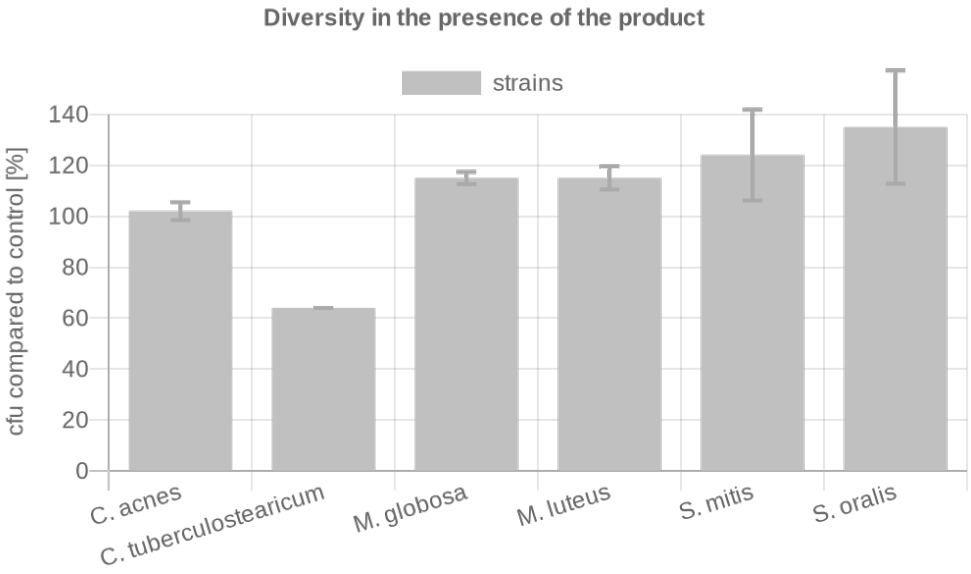
The influence of the product on the growth of each individual microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). The product contact to the microorganisms is indirect.

Key-Microbe	cfu/ml		Rating
C. acnes	Control	312	1
	Product	320	
C. simulans	Control	380.3	1
	Product	412.3	
M. globosa confluence	Control	100	1
	Product	100	
S. capitis	Control	224.7	1
	Product	268.7	
S. epidermidis	Control	515.7	2
	Product	440	
S. hominis	Control	593	2
	Product	533.3	
S. mitis	Control	772	3
	Product	1425.3	
Overall rating:			**1,6**

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.

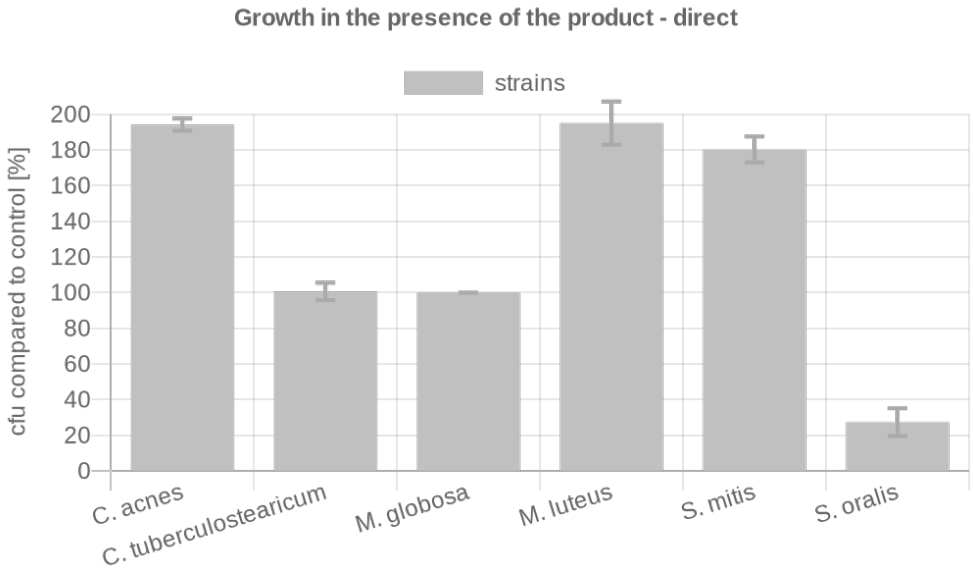


Key-Microbe	t=	4h	Rating
	cfu/ml		
C. acnes	Control	853,3	1
	Product	873,3	
C. tuberculostearicum	Control	233,3	3
	Product	150	
M. globosa confluence	Control	2116,7	1
	Product	2433,3	
M. luteus	Control	75600	1
	Product	87266,7	
S. mitis	Control	2040	1
	Product	2533,3	
S. oralis	Control	836,7	2
	Product	1133,3	
Overall rating:			**1,5**

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 (PBS). Product contact with the microorganisms is directly.

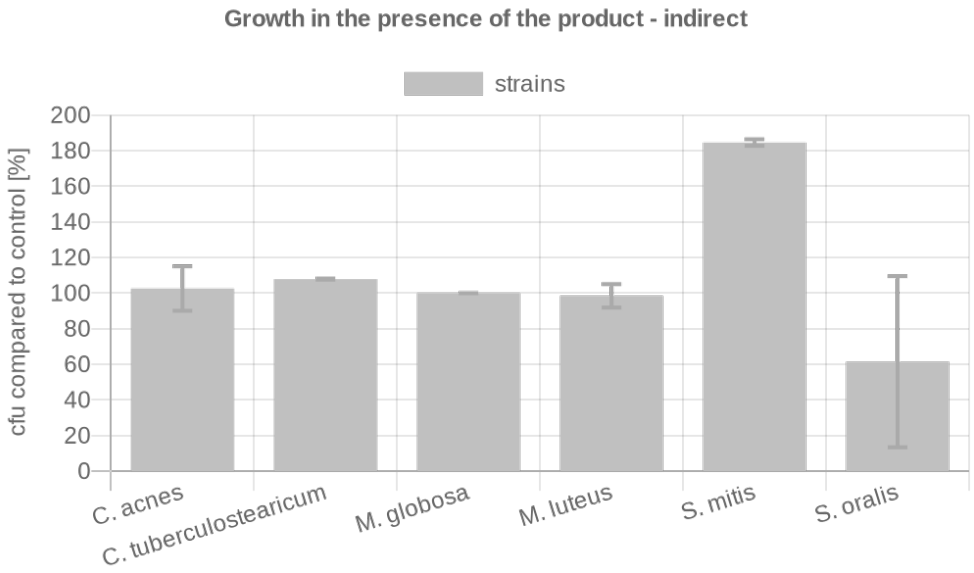


Key-Microbe	cfu/ml		Rating
C. acnes	Control	333.3	3
	Product	647.3	
C. tuberculostearicum	Control	3178	1
	Product	3200	
M. globosa confluence	Control	100	1
	Product	100	
M. luteus	Control	186.7	3
	Product	364.3	
S. mitis	Control	1332	3
	Product	2401.7	
S. oralis	Control	150.7	3
	Product	41.3	
Overall rating:			**2,3**

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 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/ml		Rating
C. acnes	Control	312	1
	Product	320	
C. tuberculostearicum	Control	2792	1
	Product	3012.7	
M. globosa confluence	Control	100	1
	Product	100	
M. luteus	Control	262.3	1
	Product	258.3	
S. mitis	Control	772	3
	Product	1425.3	
S. oralis	Control	125.3	3
	Product	77	
Overall rating:			**1,7**

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-influencing

Test	Grade
Balance of the skin microbiome	1.0
Diversity of the corresponding skin microbiome (sebaceous, x2)	2.0
Diversity of the corresponding skin microbiome (dry, x2)	1,5
Skin-product contact direct (sebaceous, x2)	2.0
Skin-product contact direct (dry, x2)	2,3
Skin-product contact indirect (sebaceous)	1,6
Skin-product contact indirect (dry)	1,7
Overall grade	**1.8**

With an overall grade of 1.8 the seal „Microbiome-friendly“ is awarded according to MyMicrobiome Standard 18.11 Face / Body.

Place, Date: Balzers, 28 March 2024

Responsible person: Dr. Kristin Neumann

Signature: