

TECHNICAL SERVICE REPORT NO. 39819

PHARMAID - COSMOCHEM

July 2019

Client:

PHARMAID - COSMOCHEM

Test Laboratory:

Technical Service Laboratory
Thor Specialties
Via Del Pontaccio,2
I-21020 Casale Litta (VA) - Italy

Contact	Katia Padoan
Telephone	+39 0332 1815326
Telefax	+39 0332 1815355
Email	k.padoan@thoritaly.it

SAMPLES

- 2) Body Lotion Cannabis 250ml (Aloe Treasures)
- 3) Body Gel After Sun 250ml (Aloe Treasures) MICROCARE PEHG 1,00%
- 4) Body Gel After Sun 250ml (Aloe Treasures)
- 5) Body Lotion Slow Age 250ml (Donkey Treasures) MICROCARE PEHG 1,10%
- 6) Body Lotion Slow Age 250ml (Donkey Treasures)
- 7) Firming Facial Serum 40ml (Donkey Treasures) MICROCARE PEHG 1,10%
- 8) Firming Facial Serum 40ml (Donkey Treasures)
- 9) Slow Age Facial Cream 50ml (Donkey Treasures) MICROCARE PEHG 1,10%
- 10) Slow Age Facial Cream 50ml (Donkey Treasures)
- 11) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures) MICROCARE PEHG 1,10%
- 12) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures)
- 13) Whitening Facial Cream 40ml (Donkey Treasures) MICROCARE PEHG 1,10%
- 14) Whitening Facial Cream 40ml (Donkey Treasures)
- 15) Hand Cream 120ml (Donkey Treasures) MICROCARE PEHG 1,10%
- 16) Hand Cream 120ml (Donkey Treasures)
- 17) Hair Conditioner 250ml (Donkey Treasures) MICROCARE CB 0,15%
- 18) Hair Conditioner 250ml (Donkey Treasures)
- 19) Body Gel After Sun 250ml (Donkey Treasures) MICROCARE PEHG 1,00%
- 20) Body Gel After Sun 250ml (Donkey Treasures)
- 21) Shower Gel 250ml (Donkey Treasures) MICROCARE CB 0,15%
- 22) Shower Gel 250ml (Donkey Treasures)
- 23) Foot Cream Mint 200ml (Athenas Treasures) MICROCARE PEHG 1,10%
- 24) Foot Cream Mint 200ml (Athenas Treasures)
- 25) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures) MICROCARE CB 0,15%
- 26) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures)
- 27) Dream Tan Cream Gel Carrot SPF2 150ml MICROCARE DB 1,10%
- 28) Dream Tan Cream Gel Carrot SPF2 150ml
- 29) Hand Cream Frangipani 60ml (Athenas Treasures)MICROCARE PEHG 1,10%
- 30) Hand Cream Frangipani 60ml (Athenas Treasures)
- 31) Hand Cream Patsouly 60ml (Athenas Treasures) MICROCARE PEHG 1,10%
- 32) Hand Cream Patsouly 60ml (Athenas Treasures)
- 33) Shampoo Normal 250ml (Aloe Treasures) MICROCARE CB 0,15%
- 34) Shampoo Normal 250ml (Aloe Treasures)
- 35) Dream Tan Lotion Milk Carrot Spf 50+ 200ml MICROCARE DB 1,10% & MICROCARE PEHG 0,20%
- 36) Dream Tan Lotion Milk Carrot Spf 50+ 200ml

EXAMINATIONS

Measurement of pH and Redox Potential: **Thor Test Method No 725**

Screening for Microbial Contamination: **Thor test Method Thor No 201**

Personal Care Preservative Efficacy Test (Streak plate method) - **Thor Test Method No 206**

BIOCIDE TESTED

To not preserved sample n° 10 following biocide was added:

- A) **Microcare® DB** at 1.1%
- B) **Microcare® PHCD** at 1.2%

To not preserved samples n° 16 and 30 following biocide was added:

- B) **Microcare® PHCD** at 1.2%

PROCEDURE

Procedure TM 725 - Measurement of pH and Redox Potential

A pH electrode is calibrated with three standard buffer solutions. After the calibration, the pH value of the sample can be determined.

Reduction potential (also known as redox potential) is a measure of the tendency of a sample to acquire electrons and thereby be reduced; the more positive the potential is, the greater is the sample's affinity for electrons and tendency to be reduced. Redox determination is performed using an appropriate electrode capable of reading the potential in mV.

The redox electrode accuracy is evaluated and checked with a standard solution.

Procedure TM 201 - Screening of Microbial Contamination

After homogenization, a sterilized loop is used to pick up a small portion of the sample and spread it in petri dishes containing the appropriate cultural media (Nutrient Agar, OGYE Agar, Saboraud Dextrose Agar, SIM medium) to allow the growth of, respectively, bacteria, yeasts, moulds and sulphate reducing bacteria. In this way, the microorganism growth can be separately assessed. The petri dishes and SIM tubes are incubated under the appropriate conditions. For bacteria detection, Nutrient Agar plate, 24-48h at 30 +/- 2°C. For yeasts and moulds detection, OGYE Agar and SDA plates, 48-72h at 26 +/- 2°C. For sulphate reducing bacteria detection, SIM tubes, 48-72h at 30 +/- 2°C. After incubation, the microbial growth is visually evaluated. Appropriate scales are used to determine the extent of the growth in the sample.

Procedure TM 206 – Personal Care Preservative Efficacy Test (Streak plate method)

The test method comprises the inoculation of a product with blended microbial cultures of known strains (pools) and enumerate the remaining microorganisms at set time points, over a period of 28 days incubation at constant temperature, by streaking onto selective agar plates (TSA or Nutrient agar, for bacteria, and Malt agar for yeasts and moulds). Density growth on the streak is determined by using a subjective numerical rating scale.

It is considered a hard test, created to evaluate the efficacy and the resistance of the preservation system. Depending on the needs in satisfying local Norms (Pharmacopeia or any microbiological test), it is possible, for certain formulation, to pass a challenge test only focused on the speed of a preservation system to reduce the microbial content.

A set of acceptance criteria based on reduction in viability are used to interpret the results.

It is recommended to test three groups of microorganisms:

Pool 1 – Bacteria

Pseudomonas aeruginosa ATCC 9027
Pseudomonas putida ATCC 31483
Burkholderia cepacia ATCC 25416
Klebsiella pneumoniae ATCC 10031
Enterobacter gergoviae ATCC 33028
Escherichia coli ATCC 8739
Staphylococcus aureus ATCC 6538
Staphylococcus epidermidis ATCC 12228

Pool 2 – Yeast

Candida albicans ATCC 10231
Candida parapsilosis ATCC 22019

Pool 3 - Mould

Aspergillus brasiliensis (niger) ATCC 16404
Talaromyces pinophilus (*P. pinophilum*)
ATCC 36839

The microorganism suspensions are prepared in Physiological solution for bacteria and yeast, in physiological plus Polysorbate 80 for moulds .

RESULTS

Measurement of pH and Redox Potential (TM 725)

SAMPLE	pH	Redox
1) Body Lotion Cannabis 250ml (Aloe Treasures) MICROCARE PEHG 1,10%	6.13	179
2) Body Lotion Cannabis 250ml (Aloe Treasures)	5.53	213
3) Body Gel After Sun 250ml (Aloe Treasures) MICROCARE PEHG 1,00%	6.29	126
4) Body Gel After Sun 250ml (Aloe Treasures)	5.98	141
5) Body Lotion Slow Age 250ml (Donkey Treasures) MICROCARE PEHG 1,10%	6.05	188
6) Body Lotion Slow Age 250ml (Donkey Treasures)	5.96	205
7) Firming Facial Serum 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	5.98	196
8) Firming Facial Serum 40ml (Donkey Treasures)	5.08	226
9) Slow Age Facial Cream 50ml (Donkey Treasures) MICROCARE PEHG 1,10%	5.20	221
10) Slow Age Facial Cream 50ml (Donkey Treasures)	6.08	189
11) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures) MICROCARE PEHG 1,10%	5.47	196
12) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures)	6.89	203
13) Whitening Facial Cream 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	6.26	204
14) Whitening Facial Cream 40ml (Donkey Treasures)	4.00	270
15) Hand Cream 120ml (Donkey Treasures) MICROCARE PEHG 1,10%	5.55	220
16) Hand Cream 120ml (Donkey Treasures)	5.27	236
17) Hair Conditioner 250ml (Donkey Treasures) MICROCARE CB 0,15%	5.19	247

SAMPLE	pH	Redox
18) Hair Conditioner 250ml (Donkey Treasures)	5.26	232
19) Body Gel After Sun 250ml (Donkey Treasures) MICROCARE PEHG 1,00%	6.37	135
20) Body Gel After Sun 250ml (Donkey Treasures)	6.37	159
21) Shower Gel 250ml (Donkey Treasures) MICROCARE CB 0,15%	5.55	215
22) Shower Gel 250ml (Donkey Treasures)	6.78	225
23) Foot Cream Mint 200ml (Athenas Treasures) MICROCARE PEHG 1,10%	5.98	195
24) Foot Cream Mint 200ml (Athenas Treasures)	5.54	210
25) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures) MICROCARE CB 0,15%	6.84	97
26) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures)	6.61	136
27) Dream Tan Cream Gel Carrot SPF2 150ml MICROCARE DB 1,10%	5.52	214
28) Dream Tan Cream Gel Carrot SPF2 150ml	6.17	246
29) Hand Cream Frangipani 60ml (Athenas Treasures)MICROCARE PEHG 1,10%	5.62	180
30) Hand Cream Frangipani 60ml (Athenas Treasures)	5.71	182
31) Hand Cream Patsouly 60ml (Athenas Treasures) MICROCARE PEHG 1,10%	5.96	186
32) Hand Cream Patsouly 60ml (Athenas Treasures)	5.84	204
33) Shampoo Normal 250ml (Aloe Treasures) MICROCARE CB 0,15%	6.07	196
34) Shampoo Normal 250ml (Aloe Treasures)	6.32	173
35) Dream Tan Lotion Milk Carrot Spf 50+ 200ml MICROCARE DB 1,10% & MICROCARE PEHG 0,20%	6.33	150
36) Dream Tan Lotion Milk Carrot Spf 50+ 200ml	5.90	163

Screening of Microbial Contamination (TM 201)

SAMPLE	Growth Rating			SULPHATE REDUCING BACTERIA 30°C
	BACTERIA	MOULDS	YEASTS	
	30°C	25°C	25°C	
1) Body Lotion Cannabis 250ml (Aloe Treasures) MICROCARE PEHG 1,10%	0	0	0	-
2) Body Lotion Cannabis 250ml (Aloe Treasures)	0	0	0	-
3) Body Gel After Sun 250ml (Aloe Treasures) MICROCARE PEHG 1,00%	0	0	0	-
4) Body Gel After Sun 250ml (Aloe Treasures)	0	0	0	-
5) Body Lotion Slow Age 250ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	-
6) Body Lotion Slow Age 250ml (Donkey Treasures)	0	0	0	-
7) Firming Facial Serum 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	-
8) Firming Facial Serum 40ml (Donkey Treasures)	0	0	0	-
9) Slow Age Facial Cream 50ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	-
10) Slow Age Facial Cream 50ml (Donkey Treasures)	0	0	0	-
11) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	-
12) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures)	0	0	0	-

SAMPLE	Growth Rating			
	BACTERIA	MOULDS	YEASTS	SULPHATE REDUCING BACTERIA
	30°C	25°C	25°C	30°C
13) Whitening Facial Cream 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	-
14) Whitening Facial Cream 40ml (Donkey Treasures)	0	0	0	-
15) Hand Cream 120ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	-
16) Hand Cream 120ml (Donkey Treasures)	0	0	0	-
17) Hair Conditioner 250ml (Donkey Treasures) MICROCARE CB 0,15%	0	0	0	-
18) Hair Conditioner 250ml (Donkey Treasures)	0	0	0	-
19) Body Gel After Sun 250ml (Donkey Treasures) MICROCARE PEHG 1,00%	0	0	0	-
20) Body Gel After Sun 250ml (Donkey Treasures)	0	0	0	-
21) Shower Gel 250ml (Donkey Treasures) MICROCARE CB 0,15%	0	0	0	-
22) Shower Gel 250ml (Donkey Treasures)	0	0	0	-
23) Foot Cream Mint 200ml (Athenas Treasures) MICROCARE PEHG 1,10%	0	0	0	-
24) Foot Cream Mint 200ml (Athenas Treasures)	0	0	0	-
25) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures) MICROCARE CB 0,15%	0	0	0	-
26) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures)	0	0	0	-

SAMPLE	Growth Rating			SULPHATE REDUCING BACTERIA 30°C
	BACTERIA 30°C	MOULDS 25°C	YEASTS 25°C	
27) Dream Tan Cream Gel Carrot SPF2 150ml MICROCARE DB 1,10%	0	0	0	-
28) Dream Tan Cream Gel Carrot SPF2 150ml	0	0	0	-
29) Hand Cream Frangipani 60ml (Athenas Treasures)MICROCARE PEHG 1,10%	0	0	0	-
30) Hand Cream Frangipani 60ml (Athenas Treasures)	0	0	0	-
31) Hand Cream Patsouly 60ml (Athenas Treasures) MICROCARPEHG 1,10%	0	0	0	-
32) Hand Cream Patsouly 60ml (Athenas Treasures)	0	0	0	-
33) Shampoo Normal 250ml (Aloe Treasures) MICROCARE CB 0,15%	0	0	0	-
34) Shampoo Normal 250ml (Aloe Treasures)	0	0	0	-
35) Dream Tan Lotion Milk Carrot Spf 50+ 200ml MICROCARPEHG 1,10% & MICROCARE PEHG 0,20%	0	0	0	-
36) Dream Tan Lotion Milk Carrot Spf 50+ 200ml	0	0	0	-

Growth assessment scale :

Notation Surface of growth on agar (bacteria and yeast)

- 0 No growth
- 1 Minimal growth, 1 to 10 visible colonies
- 2 Slight growth, up to 100 colonies
- 3 Significant growth, up to 300 to 400 colonies
- 4 Strong growth, separated colonies remain visible > 400 colonies
- 5 Very strong growth, too many colonies to count but not covering the entire surface
- 6 Total growth, the colonies are virtually inseparable and cover the entire surface

Surface of growth on agar (mould)

- 0 No growth
- X Slight growth
- XX Significant growth
- XXX Strong growth
- XXXX Very strong growth



Personal Care Preservative Efficacy Test (Streak plate method) (TM 206)

Results for the bacteria

Bacterial Challenge				
<i>Inoculum (CFU/ml)</i>	1 st	2 nd	3 rd	4 th
<i>Viable Count</i>	3.9 x 10 ⁸	4.1 x 10 ⁸	3.8 x 10 ⁸	1.9 x 10 ⁸

Test Sample	Evaluation of Bacteria growth:								
	1st inoculation		2nd inoculation		3rd inoculation		4th inoculation		
	5°d	12°d	5°d	12°d	5°d	12°d	5°d	12°d	18°d
1) Body Lotion Cannabis 250ml (Aloe Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
2) Body Lotion Cannabis 250ml (Aloe Treasures)	6	6	Contaminated						
3) Body Gel After Sun 250ml (Aloe Treasures) MICROCARE PEHG 1,00%	0		0		0		0		
4) Body Gel After Sun 250ml (Aloe Treasures)	5	5	Contaminated						
5) Body Lotion Slow Age 250ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
6) Body Lotion Slow Age 250ml (Donkey Treasures)	0		0		0		1	1	



Test Sample	Evaluation of Bacteria growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	5°d	12°d	5°d	12°d	5°d	12°d	5°d	12°d	18°d
7) Firming Facial Serum 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
8) Firming Facial Serum 40ml (Donkey Treasures)	6	6	Contaminated						
9) Slow Age Facial Cream 50ml (Donkey Treasures) MICROCORE PEHG 1,10%	0		0		6	6	Contaminated		
10) Slow Age Facial Cream 50ml (Donkey Treasures)	3		6	6	Contaminated				
10A) Slow Age Facial Cream 50ml (Donkey Treasures) + 1.1% Microcare DB	0		0		0		0		
10B) Slow Age Facial Cream 50ml (Donkey Treasures) + 1.2% Microcare PHCD	0		0		0		0		
11) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures) MICROCORE PEHG 1,10%	0		0		0		0		
12) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures)	0		0		0		1	1	



Test Sample	Evaluation of Bacteria growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	5°d	12°d	5°d	12°d	5°d	12°d	5°d	12°d	18°d
13) Whitening Facial Cream 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
14) Whitening Facial Cream 40ml (Donkey Treasures)	0		0		0		1	1	
15) Hand Cream 120ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
16) Hand Cream 120ml (Donkey Treasures)	0		0		3		3	3	
16B) Hand Cream 120ml (Donkey Treasures) + 1.2% Microcare PHCD	0		0		0		0		
17) Hair Conditioner 250ml (Donkey Treasures) MICROCARE CB 0,15%	0		0		0		0		
18) Hair Conditioner 250ml (Donkey Treasures)	0		6	6	Contaminated				
19) Body Gel After Sun 250ml (Donkey Treasures) MICROCARE PEHG 1,00%	0		0		0		0		
20) Body Gel After Sun 250ml (Donkey Treasures)	4	4	Contaminated						



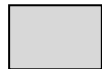
Test Sample	Evaluation of Bacteria growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	5°d	12°d	5°d	12°d	5°d	12°d	5°d	12°d	18°d
21) Shower Gel 250ml (Donkey Treasures) MICROCARE CB 0,15%	0		0		0		0		
22) Shower Gel 250ml (Donkey Treasures)	6	6	Contaminated						
23) Foot Cream Mint 200ml (Athenas Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
24) Foot Cream Mint 200ml (Athenas Treasures)	3		6	6	Contaminated				
25) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures) MICROCARE CB 0,15%	0		0		0		0		
26) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures)	0		0		0		1	1	



Test Sample	Evaluation of Bacteria growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	5°d	12°d	5°d	12°d	5°d	12°d	5°d	12°d	18°d
27) Dream Tan Cream Gel Carrot SPF2 150ml MICROCARE DB 1,10%	0		0		0		0		
28) Dream Tan Cream Gel Carrot SPF2 150ml	6	6	Contaminated						
29) Hand Cream Frangipani 60ml (Athenas Treasures)MICROCARE PEHG 1,10%	0		0		0		0		
30) Hand Cream Frangipani 60ml (Athenas Treasures)	6	6	Contaminated						
30B) Hand Cream Frangipani 60ml (Athenas Treasures) + Microcare PHCD 1,2%	0		0		0		0		
31) Hand Cream Patsouly 60ml (Athenas Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
32) Hand Cream Patsouly 60ml (Athenas Treasures)	6	6	Contaminated						



Test Sample	Evaluation of Bacteria growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	5°d	12°d	5°d	12°d	5°d	12°d	5°d	12°d	18°d
33) Shampoo Normal 250ml (Aloe Treasures) MICROCARE CB 0,15%	0		0		0		0		
34) Shampoo Normal 250ml (Aloe Treasures)	6	6	Contaminated						
35) Dream Tan Lotion Milk Carrot Spf 50+ 200ml MICROCARE DB 1,10% & MICROCARE PEHG 0,20%	0	0	0		0		0	0	
36) Dream Tan Lotion Milk Carrot Spf 50+ 200ml	6	6	Contaminated						



Not tested



Results for the yeasts

Yeasts Challenge				
Inoculum (CFU/ml)	1 st	2 nd	3 rd	4 th
Viable Count	3.5 x 10 ⁷	2.7 x 10 ⁷	3.1 x 10 ⁷	2.6 x 10 ⁷

Test Sample	Evaluation of Yeasts growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	6°d	12°d	6°d	12°d	6°d	12°d	6°d	12°d	18°d
1) Body Lotion Cannabis 250ml (Aloe Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
2) Body Lotion Cannabis 250ml (Aloe Treasures)	6	6	Contaminated						
3) Body Gel After Sun 250ml (Aloe Treasures) MICROCARE PEHG 1,00%	0		0		0		0		
4) Body Gel After Sun 250ml (Aloe Treasures)	5	5	Contaminated						
5) Body Lotion Slow Age 250ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
6) Body Lotion Slow Age 250ml (Donkey Treasures)	6	6	Contaminated						



Test Sample	Evaluation of Yeasts growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	6°d	12°d	6°d	12°d	6°d	12°d	6°d	12°d	18°d
7) Firming Facial Serum 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
8) Firming Facial Serum 40ml (Donkey Treasures)	3	4	Contaminated						
9) Slow Age Facial Cream 50ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
10) Slow Age Facial Cream 50ml (Donkey Treasures)	6	6	Contaminated						
10A) Slow Age Facial Cream 50ml (Donkey Treasures) + 1.1% Microcare DB	0		0		0		0		
10B) Slow Age Facial Cream 50ml (Donkey Treasures) + 1.2% Microcare PHCD	0		0		0		0		
11) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
12) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures)	1		2		2		2	2	

Test Sample	Evaluation of Yeasts growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	6°d	12°d	6°d	12°d	6°d	12°d	6°d	12°d	18°d
13) Whitening Facial Cream 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
14) Whitening Facial Cream 40ml (Donkey Treasures)	6	6	Contaminated						
15) Hand Cream 120ml (Donkey Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
16) Hand Cream 120ml (Donkey Treasures)	6	6	Contaminated						
16B) Hand Cream 120ml (Donkey Treasures) + 1.2% Microcare PHCD	0		0		0		0		
17) Hair Conditioner 250ml (Donkey Treasures) MICROCARE CB 0,15%	0		0		0		0		
18) Hair Conditioner 250ml (Donkey Treasures)	0		0		0		0		



Test Sample	Evaluation of Yeasts growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	6°d	12°d	6°d	12°d	6°d	12°d	6°d	12°d	18°d
19) Body Gel After Sun 250ml (Donkey Treasures) MICROCARE PEHG 1,00%	0		0		0		0		
20) Body Gel After Sun 250ml (Donkey Treasures)	2		4	5	Contaminated				
21) Shower Gel 250ml (Donkey Treasures) MICROCARE CB 0,15%	0		0		0		0		
22) Shower Gel 250ml (Donkey Treasures)	3		3		3		4	4	
23) Foot Cream Mint 200ml (Athenas Treasures) MICROCARE PEHG 1,10%	0		0		0		0		
24) Foot Cream Mint 200ml (Athenas Treasures)	6	6	Contaminated						



Test Sample	Evaluation of Yeasts growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	6°d	12°d	6°d	12°d	6°d	12°d	6°d	12°d	18°d
25) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures) MICROCARE CB 0,15%	0		0		0		0		
26) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures)	3		6	6	Contaminated				
27) Dream Tan Cream Gel Carrot SPF2 150ml MICROCARE DB 1,10%	0		0		0		0		
28) Dream Tan Cream Gel Carrot SPF2 150ml	6	6	Contaminated						
29) Hand Cream Frangipani 60ml (Athenas Treasures)MICROCARE PEHG 1,10%	4	4	Contaminated						
30) Hand Cream Frangipani 60ml (Athenas Treasures)	6	6	Contaminated						
30B) Hand Cream Frangipani 60ml (Athenas Treasures) + Microcare PHCD 1,2%	0		0		0		0		



Test Sample	Evaluation of Yeasts growth:								
	1 st inoculation		2 nd inoculation		3 rd inoculation		4 th inoculation		
	6°d	12°d	6°d	12°d	6°d	12°d	6°d	12°d	18°d
31) Hand Cream Patsouly 60ml (Athenas Treasures) MICROCARE PEHG 1,10%	0		0		0		0	0	
32) Hand Cream Patsouly 60ml (Athenas Treasures)	6	6	Contaminated						
33) Shampoo Normal 250ml (Aloe Treasures) MICROCARE CB 0,15%	0		0		0		0	0	
34) Shampoo Normal 250ml (Aloe Treasures)	6	6	Contaminated						
35) Dream Tan Lotion Milk Carrot Spf 50+ 200ml MICROCARE DB 1,10% & MICROCARE PEHG 0,20%	0		0		0		0	0	
36) Dream Tan Lotion Milk Carrot Spf 50+ 200ml	5	6	Contaminated						

 Not tested



Results for the mould

Fungi Challenge				
Viable Count			1.7 x 10 ⁷	
Sample tested	After 14 days:		After 28 days:	
	Fungal surface development	Control of viable spores (malt development)	Fungal surface development	Control of viable spores (malt development)
1) Body Lotion Cannabis 250ml (Aloe Treasures) MICROCARE PEHG 1,10%	0	0	0	0
2) Body Lotion Cannabis 250ml (Aloe Treasures)	0	XXXX	0	XXXX
3) Body Gel After Sun 250ml (Aloe Treasures) MICROCARE PEHG 1,00%	0	0	0	0
4) Body Gel After Sun 250ml (Aloe Treasures)	0	0	0	0
5) Body Lotion Slow Age 250ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	0
6) Body Lotion Slow Age 250ml (Donkey Treasures)	0	0	0	0
7) Firming Facial Serum 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	0
8) Firming Facial Serum 40ml (Donkey Treasures)	0	XXXX	0	XXXX



Sample tested	After 14 days:		After 28 days:	
	Fungal surface development	Control of viable spores (malt development)	Fungal surface development	Control of viable spores (malt development)
9) Slow Age Facial Cream 50ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	0
10) Slow Age Facial Cream 50ml (Donkey Treasures)	0	XXXX	0	XXXX
10A) Slow Age Facial Cream 50ml (Donkey Treasures) + 1.1% Microcare DB	0	0	0	0
10B) Slow Age Facial Cream 50ml (Donkey Treasures) + 1.2% Microcare PHCD	0	0	0	0
11) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	0
12) Intensive Care Cream (Psoriasis) 120ml(Donkey Treasures)	0	0	0	0
13) Whitening Facial Cream 40ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	0	0	0
14) Whitening Facial Cream 40ml (Donkey Treasures)	0	0	0	XXXX
15) Hand Cream 120ml (Donkey Treasures) MICROCARE PEHG 1,10%	0	XX	0	XX
16) Hand Cream 120ml (Donkey Treasures)	0	XXXX	0	XXXX
16B) Hand Cream 120ml (Donkey Treasures) + 1.2% Microcare PHCD	0	0	0	0



Sample tested	After 14 days:		After 28 days:	
	Fungal surface development	Control of viable spores (malt development)	Fungal surface development	Control of viable spores (malt development)
17) Hair Conditioner 250ml (Donkey Treasures) MICROCARE CB 0,15%	0	0	0	0
18) Hair Conditioner 250ml (Donkey Treasures)	0	0	0	0
19) Body Gel After Sun 250ml (Donkey Treasures) MICROCARE PEHG 1,00%	0	0	0	0
20) Body Gel After Sun 250ml (Donkey Treasures)	0	0	0	0
21) Shower Gel 250ml (Donkey Treasures) MICROCARE CB 0,15%	0	0	0	0
22) Shower Gel 250ml (Donkey Treasures)	0	0	0	0
23) Foot Cream Mint 200ml (Athenas Treasures) MICROCARE PEHG 1,10%	0	0	0	0
24) Foot Cream Mint 200ml (Athenas Treasures)	+	XXXX	Contaminated	
25) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures) MICROCARE CB 0,15%	0	0	0	0
26) Exfoliating Face Wash Gel 2 in 1 125ml (Aloe Treasures)	0	0	0	0
27) Dream Tan Cream Gel Carrot SPF2 150ml MICROCARE DB 1,10%	0	0	0	0
28) Dream Tan Cream Gel Carrot SPF2 150ml	0	XXXX	0	XXXX



Sample tested	After 14 days:		After 28 days:	
	Fungal surface development	Control of viable spores (malt development)	Fungal surface development	Control of viable spores (malt development)
29) Hand Cream Frangipani 60ml (Athenas Treasures)MICROCARE PEHG 1,10%	0	0	0	0
30) Hand Cream Frangipani 60ml (Athenas Treasures)	0	XXXX	0	XXXX
30B) Hand Cream Frangipani 60ml (Athenas Treasures) + Microcare PHCD 1,2%	0	0	0	0
31) Hand Cream Patsouly 60ml (Athenas Treasures) MICROCARE PEHG 1,10%	0	0	0	0
32) Hand Cream Patsouly 60ml (Athenas Treasures)	0	XXXX	0	XXXX
33) Shampoo Normal 250ml (Aloe Treasures) MICROCARE CB 0,15%	0	0	0	0
34) Shampoo Normal 250ml (Aloe Treasures)	0	0	0	0
35) Dream Tan Lotion Milk Carrot Spf 50+ 200ml MICROCARE DB 1,10% & MICROCARE PEHG 0,20%	0	0	0	0
36) Dream Tan Lotion Milk Carrot Spf 50+ 200ml	0	0	0	0

Growth assessment scale :

BACTERIA / YEASTS

Notation Surface of growth on agar

0	No growth
1	Minimal growth, 1 to 10 visible colonies
2	Slight growth, up to 100 colonies
3	Significant growth, up to 300 to 400 colonies
4	Strong growth, separated colonies remain visible > 400 colonies
5	Very strong growth, too many colonies to count but not covering the entire surface
6	Total growth, the colonies are virtually inseparable and cover the entire surface

MOULDS

Development on the Surface Fungal Development

0 no growth	0 No growth
+ growth	X Slight growth
	XX Significant growth
	XXX Strong growth
	XXXX Very strong growth

INTERPRETATION OF RESULTS

To validate a preservative system, it must be capable of withstanding a minimum of 1 successive inoculations and reduce levels of microorganisms to a maximum value of 3 on the rating scale of bacteria and yeasts and must not show signs of fungal development on the surface nor remaining surviving spores on the streaked plates superior to 2X on the rating scale after 28 days of incubation. A sample is considered contaminated if the content of microorganisms is ≥ 4 on the rating scale after 14 days incubation for bacteria and yeasts.

In any case, the acceptance criteria are to be discussed with the customer depending on the security level they required.



Technical Director
Katia Padoan



Laboratory Manager
Gerardo Radogna

19.07.2019

Please note that unless otherwise stated, the conclusions and any recommendations, either made or implied, are based on information drawn from examination of the samples identified in this report only. Since these may be influenced by, for example, infection level variations in raw materials, stored component solutions and manufacturing equipment, it is recommended that some appropriate monitoring of microbiological properties be carried out. Use biocides safely. Always read the label and product information before use.