

Supplementary information

Part 1 – Screening Questionnaire

Supplementary Table 1: Questionnaire on skin condition and sunscreens habits (Day 1 before first application)

Question	Possible responses
1. Do you flush and blush strongly or get a red face in the sun?	Strongly agree; agree; disagree; strongly disagree
2. Do you have sensitive skin to products applied on the face?	Strongly agree; agree; disagree; strongly disagree
3. Do you prefer to pick out products that are well tolerated on your face?	Strongly agree; agree; disagree; strongly disagree
4. Do you use sunscreens before going in the sun?	Yes; No
5. What Sun Protection Factor (SPF) do you use most often?	<30; 30-50; 50+
6. Are you satisfied with your current sunscreen(s)?	Yes; No
7. If you are not satisfied with your current sunscreen(s), please indicate why	It does not protect my skin from getting red in the sun; It causes skin irritation; I don't like the formula
8. Which of the following describes your skin condition best?	Redness does not persist after flushing and blushing; Redness lasts long after flushing and blushing; Permanent redness of the mid face that flares up in the sun

Part 2 – Assessment Questionnaires

Supplementary Table 2: Questionnaire on short-term cosmetic acceptability (Day 1 after first application)

Question	Possible responses
1. What is your impression of the sunscreen product after the first use?	Very pleasant; pleasant; unpleasant; very unpleasant
2. My skin feels relieved even after a single application:	Strongly agree; agree; disagree; strongly disagree
3. The formula does not irritate:	Strongly agree; agree; disagree; strongly disagree
4. The formula does not cause stinging or burning:	Strongly agree; agree; disagree; strongly disagree
5. My skin is better moisturized even after a first	Strongly agree; agree; disagree; strongly disagree

application:	
6. The formula is easy to apply:	Strongly agree; agree; disagree; strongly disagree
7. The formula is quickly absorbed into the skin/ doesn't leave white residues after application	Strongly agree; agree; disagree; strongly disagree
8. The formula does not make my skin appear greasy/oily after a first application	Strongly agree; agree; disagree; strongly disagree

Supplemental Table 3: Questionnaire on long-term cosmetic acceptability (Day 22)

Question	Possible responses
1. What is your overall impression of the sunscreen product?	Very pleasant; pleasant; unpleasant; very unpleasant
2. The formula is easy to apply:	Strongly agree; agree; disagree; strongly disagree
3. My skin is better moisturized after application:	Strongly agree; agree; disagree; strongly disagree
4. The formula does not irritate:	Strongly agree; agree; disagree; strongly disagree
5. The formula does not cause stinging or burning:	Strongly agree; agree; disagree; strongly disagree
6. The formula helps to prevent facial redness provoked by sun	Strongly agree; agree; disagree; strongly disagree
7. The formula sufficiently protects my skin from the sun	Strongly disagree; disagree; agree; strongly agree
8. My rosacea symptoms did not get worse after using the product on my skin:	Strongly agree; agree; disagree; strongly disagree
9. The product is easy to incorporate in my daily skincare regimen	Strongly agree; agree; disagree; strongly disagree
10. The formula is quickly absorbed into the skin/ doesn't leave white residues after application	Strongly agree; agree; disagree; strongly disagree
11. The formula does not make my skin appear greasy/oily	Strongly agree; agree; disagree; strongly disagree
12. How would you rate the following characteristics of the product: Texture	Very pleasant; pleasant; unpleasant; very unpleasant
13. How would you rate the following characteristics of the product: Color	Very pleasant; pleasant; unpleasant; very unpleasant
14. How would you rate the following characteristics of the product: Scent/smell	Very pleasant; pleasant; unpleasant; very unpleasant
15. Would you buy this sunscreen product?	Yes; No

16. If you have been using another sunscreen before, would you use this sunscreen too or switch for the tested sunscreen?	Will not use tested sunscreen; Will also use the tested sunscreen; Will switch to tested sunscreen
17. If you prefer the tested sunscreen to your previous one(s), please indicate why.	It better protects my skin from getting red in the sun; It causes less or no skin irritation; I like the formula
18. Would you recommend this sunscreen to your family and friends?	Yes; No

Part 3 - Detailed results of the questionnaires

Supplementary Table 4 – Detailed results of Questionnaire on skin condition and sunscreens habits (Day 1 before first application)

Question	Relative Frequency [%]				p-Values	
	Disagreement		Agreement			
1. Do you flush and blush strongly or get a red face in the sun?	2.3		97.7		<0.001*	
2. Do you have sensitive skin to products applied on the face?	0.0		100.0		<0.001*	
3. Do you prefer to pick out products that are well tolerated on your face?	0.0		100.0		<0.001*	
4. Do you use sunscreens before going in the sun?	Yes		No			
	n	%	n	%		
	43	97.7	1	2.3		
5. What Sun Protection Factor (SPF) do you use most often?	<30		30-50		50+	
	n	%	n	%	n	%
	20	45.5	21	47.7	3	6.8
6. Are you satisfied with your current sunscreen(s)?	Yes		No			
	n	%	n	%		
	29	65.9	15	34.1		
7. If you are not satisfied with your current sunscreen(s), please indicate why	n.a.*		Unselected		Selected	
	n	%	n	%	n	%

7.A It does not protect my skin from getting red in the sun	29	65.9	3	6.8	12	27.3
7.B It causes skin irritation	29	65.9	10	22.7	5	11.4
7.C I don't like the formula	29	65.9	9	20.5	6	13.6
8. Which of the following describes your skin condition best?	Redness does not persist after flushing and blushing		Redness lasts longer after flushing and blushing		Permanent redness of the mid face that flares up in the sun	
	n	%	n	%	n	%
	9	20.5	23	52.3	12	27.3

n.a.: not applicable *: significant, $p \leq 0.05$

Supplementary Table 5: Detailed results of Questionnaire on short-term cosmetic acceptability (Day 1 after first application)

Question	Relative Frequency [%]		p-Values
	Unpleasantness	Pleasantness	
1. What is your impression of the sunscreen product after the first use?	9.1	90.9	<0.001*
	Relative Frequency [%]		p-Values
	Disagreement	Agreement	
2. My skin feels relieved even after a single application:	18.2	81.8	<0.001*
3. The formula does not irritate:	6.8	93.2	<0.001*
4. The formula does not cause stinging or burning:	4.5	95.5	<0.001*
5. My skin is better moisturized even after a first application:	15.9	84.1	<0.001*
6. The formula is easy to apply:	0.0	100.0	<0.001*
7. The formula is quickly absorbed into the skin/ doesn't leave white residues after application	11.4	88.6	<0.001*
8. The formula does not make my skin appear greasy/oily after a first application	13.6	86.4	<0.001*

*: significant, $p \leq 0.05$

Supplementary Table 6: Details results of Questionnaire on long-term cosmetic acceptability (Day 22)

Question	Relative Frequency [%]		p-Values
	Unpleasantness	Pleasantness	
1. What is your overall impression of the sunscreen product?	15.9	84.1	<0.001*
	Relative Frequency [%]		p-Values
	Disagreement	Agreement	
2. The formula is easy to apply:	4.5	95.5	<0.001*
3. My skin is better moisturized after application:	13.6	86.4	<0.001*
4. The formula does not irritate:	4.5	95.5	<0.001*
5. The formula does not cause stinging or burning:	4.5	95.5	<0.001*
6. The formula helps to prevent facial redness provoked by sun	9.1	90.9	<0.001*
7. The formula sufficiently protects my skin from the sun	0.0	100.0	<0.001*
8. My rosacea symptoms did not get worse after using the product on my skin:	2.3	97.7	<0.001*
9. The product is easy to incorporate in my daily skincare regimen	9.1	90.9	<0.001*
10. The formula is quickly absorbed into the skin/ doesn't leave white residues after application	25.0	75.0	<0.001*
11. The formula does not make my skin appear greasy/oily	22.7	77.3	<0.001*
	Unpleasantness	Pleasantness	
12. How would you rate the following characteristics of the product: Texture	13.6	86.4	<0.001*
13. How would you rate the following characteristics of the product: Color	11.4	88.6	<0.001*
14. How would you rate the following characteristics of the product: Scent/smell	6.8	93.2	<0.001*
15. Would you buy this sunscreen	<div style="display: flex; justify-content: space-around;"> Yes No </div>		

product?	n		%		n		%									
	35		79.5		9		20.5									
16. If you have been using another sunscreen before, would you use this sunscreen too or switch for the tested sunscreen?	Will not use tested sunscreen			Will also use the tested sunscreen			Will switch to tested sunscreen									
	n		%		n		%		n		%					
	9		20.5		13		29.5		22		50.0					
17. If you prefer the tested sunscreen to your previous one(s), please indicate why.	n.a.**			m.v.***			Unselected			Selected						
	n		%		n		%		n		%					
17.A It better protects my skin from getting red in the sun	9		20.5		2		4.5		4		9.1		29		65.9	
17.B It causes less or no skin irritation	9		20.5		2		4.5		16		36.4		17		38.6	
17.C I like the formula	9		20.5		2		4.5		13		29.5		20		45.5	
18. Would you recommend this sunscreen to your family and friends?	Yes						No									
	n			%			n			%						
	35			79.5			9			20.5						

** : n.a.: not applicable ***: m.v.: missing value *: significant, $p \leq 0.05$

Part 4 - Diary recordings of adverse events

Supplemental Table 7: Summary of Adverse events recorded in subject diaries

Subject Identification Number	Adverse event	Discontinued study	Reasonable probability that the adverse event was related to the study product
32	Pustule on chin	Yes	Yes
32	Papules on left cheek	Yes	Yes
7	Headache	No	No
34	Migraine	No	No
40	Toothache	No	No