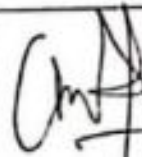
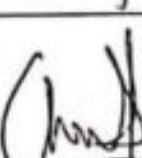
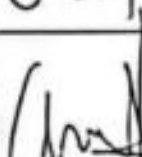
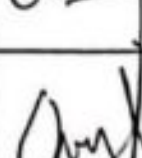
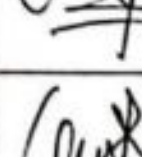


LAMPIRAN

Lampiran 1. Jadwal bimbingan dosen pembimbing 1

LEMBAR KARTU BIMBINGAN

Nama Mahasiswa : M. Ibadurrohman
 NIM : 20.02.06.0099
 Dosen Pembimbing I : apt. Elasari Dwi Pratiwi. M.Farm

No	Hari, Tanggal/Bulan/ Tahun	Kegiatan/Materi Konsultasi	Paraf	
			Pembimbing	Mahasiswa
1	Selasa 26 September 2023	Bab 1 Pengusunan kalimat.	eh	
2	Jum'at. 6-10-2023	Bab 1 Tambahkan Reviu latar belakang.	eh	
3	Rabu 11-10-2023	Bab 1, 2. Tambahkan Reviu Probiotik.	eh	
4	Selasa 17-10-2023	Bab 1, 2, 3 Tambahkan Reviu serum kerangka konsep	eh	
5	Rabu 25-10-2023	Bab 1, 2, 3. Penentuan nilai SPF di tambahi.	eh	
6	Jum'at. 27-10-2023	Bab 1, 2, 3. Analisis data. kerangka kerja, Pengusunan chpus.	eh	
7	kamis 9-11-2023	ACC	eh	

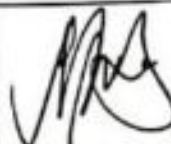
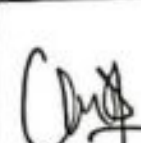
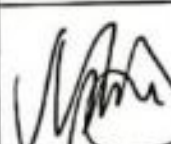
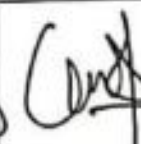
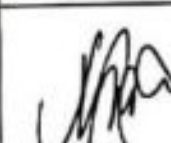
Lampiran 2. Jadwal bimbingan dosen pembimbing 2

LEMBAR KARTU BIMBINGAN

Nama Mahasiswa : M Ibadurrohman

NIM : 20.02.06.0099

Dosen Pembimbing 2 : Diah Indah Kumala Sari, M. Farm

No	Hari, Tanggal/Bulan/ Tahun	Kegiatan/Materi Konsultasi	Paraf	
			Pembimbing	Mahasiswa
1	25-10-2023	Penataan isi mulai bab 1, bab 2, bab 3.		
2	1-11-2023	Tambahan latar belakang Penyusunan evalu- asi bab 1.		
3	6-11-2023	Revisi Bab 1, bab 3. Penyusunan bab 1, bab 3.		
4	9-11-2023	ACC proposai diterima.		

Lampiran 3. Surat Permohonan Izin Penelitian

SURAT PERMOHONAN PENELITIAN DI LABORATORIUM

Hal: Permohonan Izin Penelitian di Laboratorium

Kepada Yth:
Kepala Laboratorium Pendidikan Kesehatan Terpadu
Universitas Muhammadiyah Lamongan

Assalamu'alaikum Wr. Wb.
Dengan hormat,

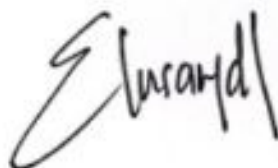
Sehubungan dengan penelitian yang akan saya lakukan, maka saya yang bertanda tangan di bawah ini:

Nama : M Ibadurrohman
Nim : 2002060099
Program Studi : S1 Farmasi
Fakultas : Ilmu Kesehatan
Judul Penelitian : Studi *In Vitro* Sun Protecting Factor (SPF) Serum Probiotik dan Uji Iritasi

Memohon izin kepada Bapak untuk melakukan penelitian di Laboratorium Pendidikan Kesehatan Terpadu Universitas Muhammadiyah Lamongan.

Demikian surat permohonan ini saya buat.
Atas perhatian Bapak, saya ucapkan terima kasih.

Mengetahui,
Dosen Pembimbing I



apt. Elasari Dwi Pratiwi, M.Farm

Menyetujui
Ketua Pelaksana



Dr. H. Dadang Kushiantoro, S.Kep., Ns., M.Si., M.M.

Hormat Saya



M. Ibadurrohman

Mengetahui,
Dosen Pembimbing II



Diah Indah K.S. M. Farm

Lampiran 4. Hasil uji SPSS

1. Uji pH

Tests of Normality							
		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	formula	Statistic	df	Sig.	Statistic	df	Sig.
ph	f0 (basis)	,328	3	.	,871	3	,298
	f1 (2%)	,175	3	.	1,000	3	1,000
	f2 (4%)	,253	3	.	,964	3	,637
	f3 (6%)	,292	3	.	,923	3	,463

a. Lilliefors Significance Correction

Keterangan :

sig >0,05 = Data terdistribusi normal

sig <0,05 = Data tidak terdistribusi normal

Hasil :

Data terdistribusi secara normal ditandai dengan nilai signifikansi >0,05

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
ph	Based on Mean	2,393	3	8	,144
	Based on Median	,365	3	8	,781
	Based on Median and with adjusted df	,365	3	4,096	,783
	Based on trimmed mean	2,129	3	8	,175

Keterangan :

sig >0,05 = Data terdistribusi secara homogen

sig <0,05 = Data tidak terdistribusi secara homogen

Hasil :

Data terdistribusi secara homogen ditandai dengan nilai signifikansi >0,05

ANOVA

ph

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,005	3	,002	3,772	,059
Within Groups	,004	8	,000		
Total	,009	11			

Keterangan :

sig >0,05 = Tidak terdapat perbedaan

sig <0,05 = Terdapat perbedaan

Hasil :

Tidak terdapat perbedaan yang signifikan antar formula

2. Uji Viskositas**Tests of Normality**

	formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
viskositas	f0 (basis)	,349	3	.	,832	3	,194
	f1 (2%)	,292	3	.	,923	3	,463
	f2 (4%)	,219	3	.	,987	3	,780
	f3 (6%)	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Keterangan :

sig >0,05 = Data terdistribusi normal

sig <0,05 = Data tidak terdistribusi normal

Hasil :

Data terdistribusi secara normal ditandai dengan nilai signifikansi >0,05

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
viskositas	Based on Mean	1,686	3	8	,247
	Based on Median	,225	3	8	,876
	Based on Median and with adjusted df	,225	3	3,947	,875
	Based on trimmed mean	1,489	3	8	,290

Keterangan :

sig >0,05 = Data terdistribusi secara homogen

sig <0,05 = Data tidak terdistribusi secara homogen

Hasil :

Data terdistribusi secara homogen ditandai dengan nilai signifikansi >0,05

ANOVA

viskositas					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2847,720	3	949,240	535,286	,000
Within Groups	14,187	8	1,773		
Total	2861,907	11			

Keterangan :

sig >0,05 = Tidak terdapat perbedaan

sig <0,05 = Terdapat perbedaan

Hasil :

Terdapat perbedaan yang signifikan antar formula sehingga dilanjutkan uji lanjutan post hoc tukey.

viskositas

Tukey B^a

formula	N	Subset for alpha = 0.05			
		1	2	3	4
f3 (6%)	3	329,867			
f2 (4%)	3		335,467		
f1 (2%)	3			349,867	
f0 (basis)	3				369,733

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Hasil :

Keempat formula menempati subset yang berbeda

Kesimpulan :

Keempat formula secara signifikan adalah berbeda bermakna

3. Uji daya sebar

Tests of Normality

	formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
DayaSebar	f0 (basis)	,182	3	.	,999	3	,935
	f1 (2%)	,241	3	.	,974	3	,688
	f2 (4%)	,269	3	.	,949	3	,567
	f3 (6%)	,314	3	.	,893	3	,363

a. Lilliefors Significance Correction

Keterangan :

sig >0,05 = Data terdistribusi normal

sig <0,05 = Data tidak terdistribusi normal

Hasil :

Data terdistribusi secara normal ditandai dengan nilai signifikansi >0,05

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
DayaSebar	Based on Mean	1,568	3	8	,271
	Based on Median	,577	3	8	,646
	Based on Median and with adjusted df	,577	3	4,393	,658
	Based on trimmed mean	1,483	3	8	,291

Keterangan :

sig >0,05 = Data terdistribusi secara homogen

sig <0,05 = Data tidak terdistribusi secara homogen

Hasil :

Data terdistribusi secara homogen ditandai dengan nilai signifikansi >0,05

ANOVA

DayaSebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,150	3	,383	39,554	,000
Within Groups	,078	8	,010		
Total	1,228	11			

Keterangan :

sig >0,05 = Tidak terdapat perbedaan

sig <0,05 = Terdapat perbedaan

Hasil :

Terdapat perbedaan yang signifikan antar formula sehingga dilanjutkan uji lanjutan post hoc tukey.

DayaSebar

Tukey B^a

formula	N	Subset for alpha = 0.05			
		1	2	3	4
f0 (basis)	3	6,103			
f1 (2%)	3		6,413		
f2 (4%)	3			6,670	
f3 (6%)	3				6,940

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Hasil :

Keempat formula menempati subset yang berbeda

Kesimpulan :

Keempat formula secara signifikan adalah berbeda bermakna

Lampiran 5. Perhitungan Bahan

F0 (Basis)

$$\text{Xanthan gum} = \frac{0,4}{100} \times 100 = 0,4 \text{ gr}$$

$$\text{Butilen glikol} = \frac{10}{100} \times 100 = 10 \text{ gr}$$

$$\text{Metil paraben} = \frac{0,3}{100} \times 100 = 0,3 \text{ gr}$$

$$\text{Aqua destilata} = 100 - (0,4 + 10 + 0,3) = 100 - 10,7 = 89,3 \text{ ml}$$

F1 (probiotik 2%)

$$\text{Probiotik} = \frac{2}{100} \times 100 = 2 \text{ gr}$$

$$\text{Xanthan gum} = \frac{0,4}{100} \times 100 = 0,4 \text{ gr}$$

$$\text{Butilen glikol} = \frac{10}{100} \times 100 = 10 \text{ gr}$$

$$\text{Metil paraben} = \frac{0,3}{100} \times 100 = 0,3 \text{ gr}$$

$$\text{Aqua destilata} = 100 - (2 + 0,4 + 10 + 0,3) = 100 - 12,7 = 87,3 \text{ ml}$$

F2 (Probiotik 4%)

$$\text{Probiotik} = \frac{4}{100} \times 100 = 4 \text{ gr}$$

$$\text{Xanthan gum} = \frac{0,4}{100} \times 100 = 0,4 \text{ gr}$$

$$\text{Butilen glikol} = \frac{10}{100} \times 100 = 10 \text{ gr}$$

$$\text{Metil paraben} = \frac{0,3}{100} \times 100 = 0,3 \text{ gr}$$

$$\text{Aqua destilata} = 100 - (4 + 0,4 + 10 + 0,3) = 100 - 14,7 = 85,3 \text{ ml}$$

F3 (Probiotik 6%)

$$\text{Probiotik} = \frac{6}{100} \times 100 = 6 \text{ gr}$$

$$\text{Xanthan gum} = \frac{0,4}{100} \times 100 = 0,4 \text{ gr}$$

$$\text{Butilen glikol} = \frac{10}{100} \times 100 = 10 \text{ gr}$$

$$\text{Metil paraben} = \frac{0,3}{100} \times 100 = 0,3 \text{ gr}$$

$$\text{Aqua destilata} = 100 - (6 + 0,4 + 10 + 0,3) = 100 - 16,7 = 83,3 \text{ ml}$$

Lampiran 6. Perhitungan Larutan Pengujian SPF

1. Perhitungan larutan induk 1000 ppm

$$1000 \text{ ppm} = \frac{1000 \text{ mg}}{1000 \text{ ml}}$$

$$\frac{1000}{1000} = \frac{x \text{ mg}}{50 \text{ ml}}$$

$$x = \frac{50000 \text{ mg/ml}}{1000}$$

$$x = 50 \text{ mg}$$

2. Perhitungan larutan uji konsentrasi 200, 300, 400, 500, 600 ppm

- **Larutan uji 600 ppm (10 ml)**

$$V1 \times M1 = V2 \times M2$$

$$V1 \times 1000 \text{ ppm} = 600 \text{ ppm} \times 10 \text{ ml}$$

$$V1 = \frac{600 \text{ ppm} \times 10 \text{ ml}}{1000 \text{ ml}}$$

$$V1 = 6 \text{ ml}$$

- **Larutan uji 500 ppm (10 ml)**

$$V1 \times M1 = V2 \times M2$$

$$V1 \times 1000 \text{ ppm} = 500 \text{ ppm} \times 10 \text{ ml}$$

$$V1 = \frac{500 \text{ ppm} \times 10 \text{ ml}}{1000 \text{ ml}}$$

$$V1 = 5 \text{ ml}$$

- **Larutan uji 400 ppm (10 ml)**

$$V1 \times M1 = V2 \times M2$$

$$V1 \times 1000 \text{ ppm} = 400 \text{ ppm} \times 10 \text{ ml}$$

$$V1 = \frac{400 \text{ ppm} \times 10 \text{ ml}}{1000 \text{ ml}}$$

$$V1 = 4 \text{ ml}$$

- **Larutan uji 300 ppm (10 ml)**

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 300 \text{ ppm} \times 10 \text{ ml}$$

$$V_1 = \frac{300 \text{ ppm} \times 10 \text{ ml}}{1000 \text{ ml}}$$

$$V_1 = 3 \text{ ml}$$

- **Larutan uji 200 ppm (10 ml)**

$$V_1 \times M_1 = V_2 \times M_2$$

$$V_1 \times 1000 \text{ ppm} = 200 \text{ ppm} \times 10 \text{ ml}$$

$$V_1 = \frac{200 \text{ ppm} \times 10 \text{ ml}}{1000 \text{ ml}}$$

$$V_1 = 2 \text{ ml}$$

Lampiran 7. Perhitungan Nilai SPF

F0 (Basis)

konsentrasi	panjang gelombang	abs			A	EE x I	Abs x EE x I	CF	SPF	keterangan	
		R1	R2	R3							
500 ppm	290	0,5696	0,5695	0,5695	0,569533	0,0150	0,008543	10	5,632603	proteksi sedang	
	295	0,5682	0,5681	0,5681	0,568133	0,0817	0,046416493				
	300	0,5642	0,5642	0,5641	0,564167	0,2874	0,1621415				
	305	0,5626	0,5626	0,5626	0,5626	0,3278	0,18442028				
	310	0,5628	0,5628	0,5627	0,562767	0,1864	0,104899707				
	315	0,5584	0,5583	0,5584	0,558367	0,0839	0,046846963				
	320	0,5552	0,5551	0,5551	0,555133	0,0180	0,0099924				
	jumlah						0,563260343				

F1 (Probiotik 2%)

konsentrasi	panjang gelombang	abs			A	EE x I	Abs x EE x I	CF	SPF	keterangan	
		R1	R2	R3							
500 ppm	290	0,5879	0,5879	0,5878	0,587867	0,0150	0,008818	10	5,790538	proteksi sedang	
	295	0,5857	0,5857	0,5857	0,5857	0,0817	0,04785169				
	300	0,5818	0,5818	0,5817	0,581767	0,2874	0,16719974				
	305	0,5773	0,5772	0,5772	0,577233	0,3278	0,189217087				
	310	0,5765	0,5765	0,5764	0,576467	0,1864	0,107453387				
	315	0,5748	0,5748	0,5748	0,5748	0,0839	0,04822572				
	320	0,5716	0,5715	0,5716	0,571567	0,0180	0,0102882				
	jumlah						0,579053823				

F2 (Probiotik 4%)

konsentrasi	panjang gelombang	abs			A	EE x I	Abs x EE x I	CF	SPF	keterangan	
		R1	R2	R3							
500 ppm	290	0,5953	0,5952	0,5953	0,595267	0,0150	0,008929	10	5,882365	proteksi sedang	
	295	0,5926	0,5926	0,5926	0,5926	0,0817	0,04841542				
	300	0,5905	0,5904	0,5904	0,590433	0,2874	0,16969054				
	305	0,5887	0,5887	0,5886	0,588667	0,3278	0,192964933				
	310	0,5853	0,5852	0,5852	0,585233	0,1864	0,109087493				
	315	0,5814	0,5813	0,5813	0,581333	0,0839	0,048773867				
	320	0,5764	0,5764	0,5764	0,5764	0,0180	0,0103752				
	jumlah						0,588236453				

F3 (Probiotik 6%)

konsentrasi	panjang gelombang	abs			A	EE x I	Abs x EE x I	CF	SPF	keterangan	
		R1	R2	R3							
500 ppm	290	0,6117	0,6117	0,6117	0,6117	0,0150	0,0091755	10	6,090002	proteksi ekstra	
	295	0,6109	0,6108	0,6108	0,610833	0,0817	0,049905083				
	300	0,6092	0,6092	0,6092	0,6092	0,2874	0,17508408				
	305	0,6088	0,6088	0,6087	0,608767	0,3278	0,199553713				
	310	0,6085	0,6085	0,6084	0,608467	0,1864	0,113418187				
	315	0,6073	0,6072	0,6073	0,607267	0,0839	0,050949673				
	320	0,6064	0,6063	0,6063	0,606333	0,0180	0,010914				
	jumlah						0,609000237				

Lampiran 8. Hasil Karakteristik Fisik

Pengujian	Dokumentasi	
Organoleptis		
Formula 0		
Formula 1		
Formula 2		

Formula 3	
-----------	---

Pengujian	Dokumentasi	
Homogenitas		
Formula 0		
Formula 1		
Formula 2		

Formula 3	
-----------	---

Pengujian	Dokumentasi		
Daya sebar	Replikasi		
	1	2	3
Formula 0			
Formula 1			
Formula 2			
Formula 3			

Pengujian	Dokumentasi		
Uji pH	Replikasi		
	1	2	3
Formula 0			
Formula 1			
Formula 2			
Formula 3			

Pengujian	Dokumentasi		
Viskositas	Replikasi		
	1	2	3
Formula 0			
Formula 1			
Formula 2			
Formula 3			

Lampiran 9. Certificate Of Analysis

a. Xanthan gum



Certificate of Analysis

(Representative Sample Certificate)

Product Name: Xanthan Gum, Prehydrated
INCI Name: Xanthan Gum
CAS Number: 11138-66-2
Lot Number: Not available (data may vary slightly with different lots or batches)
Expiration Date: 36 months from production date

Characteristics	Standards	Lab Results	
		Pass	Comments
Bacteriological			
Aerobic Plate Count	<2000 cfu	Yes	<2000 cfu
Total confirmed Coliforms	<30 /g	Yes	<30 /g
E. Coli (Typical)	Negative	Yes	Negative
Salmonella (Typical)	Negative	Yes	Negative
Staph. Aureus-BAM	Negative /10g	Yes	Negative /10g
Yeast and Mold (Typical)	<200 /g	Yes	<200 /g
Particle Size			
SS#80 mesh-ON	80-100	Yes	98.2%
SS#40 mesh-ON	20-65	Yes	26.9%
Physical and Chemical			
Powder Color	Cream	Yes	Cream
Flavor	Typical Bland	Yes	Typical Bland
Moisture	0-15%	Yes	9.29%
Odor	Characteristic	Yes	Characteristic
pH (viscosity solution)	5-8.1	Yes	5.85 pH
Texture (qualitative)	Free flowing powder	Yes	Free flowing powder
Viscosity (1.0%,KCL,LV@60rpm,25° C)	1400-2000 cps	Yes	1710 cps

The above data were obtained using the test indicated and is subject to the deviation inherent in the test method. Results may vary under other test methods or conditions.

This report is not to be signed.

Disclaimer: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.

MAKINGCOSMETICS.com Inc.
10800 231st Way NE, Redmond, WA 98053
Phone 425-292-9502 Fax 425-292-9601 www.makingcosmetics.com

b. Methyl paraben



Certificate of Analysis

Inhibitors • Screening Libraries • Proteins

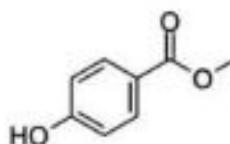
Methyl Paraben

Cat. No.: HY-N0349
 CAS No.: 99-76-3
 Batch No.: 33250
 Chemical Name: Benzoic acid, 4-hydroxy-, methyl ester

PHYSICAL AND CHEMICAL PROPERTIES

Molecular Formula: $C_8H_8O_3$
 Molecular Weight: 152.15
 Storage: Powder -20°C 3 years
 4°C 2 years
 In solvent -80°C 6 months
 -20°C 1 month

Chemical Structure:



ANALYTICAL DATA

Appearance: White to off-white (Solid)
 1H NMR Spectrum: Consistent with structure
 Purity (HPLC): 99.71%
 Conclusion: The product has been tested and complies with the given specifications.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

c. Aquadest

CERTIFICATE OF ANALYSIS

Product Name	: AQUADEST	Molecular Weight	: 18.02 g/mol
Catalog No.	: A-1078	Batch No.	: 110518007
Grade	: Laboratory Reagent	Manufacturing Date	: December, 2022
Formula	: H ₂ O	Expire Date	: December, 2027
Cas No	: 7732 – 18 - 5		

NO.	ITEM TEST	UNITS	SPECIFICATION	RESULT
1.	Appearance	–	Clear and free of visible particulate	Passes test
2.	Conductivity at 25 °C	uS/cm	≤ 1.0	0.18
3.	pH at 25 °C	–	5.0 – 7.5	7.1
4.	Turbidity	NTU	≤ 0.5	< 0.5
5.	Total Dissolve Solid (TDS)	ppm	≤ 0.5	0.09
6.	Residu on evaporation	ppm	≤ 1.0	NIL
7.	Total Organic Carbon (TOC)	ppm	≤ 50	< 50
8.	Total Hardness	ppm	≤ 0.1	NIL
9.	Chloride (Cl)	ppm	≤ 0.5	0.35
10.	Silica (as SiO ₂)	ppm	≤ 0.5	< 0.1
11.	Iron (Fe)	ppm	≤ 0.1	0.0375
12.	Aromatic Hydrocarbon	ppm	Free of Hydrocarbon	NIL

d. Etanol Pro Analysa


PT. SMART-LAB INDONESIA
 MANUFACTURER OF ANALYTICAL REAGENTS
 

CERTIFICATE OF ANALYSIS

Product Name : Etanol (Absolute) Catalog No. : A-1035 Grade : Analytical Reagent Formula : C_2H_5OH Cas No : 64-17-5	Molecular Weight : 46.07 g/mol Batch No. : 100222002 Manufacturing Date : February 10, 2022 Expire Date : February, 2027
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NO	ITEM TEST	UNITS	SPECIFICATION	RESULT
1.	Appearance	—	Clear colorless liquid	Clear colorless liquid
2.	Assay (Alcoholmeter)	wt %	min 99.7	99.939
3.	Wt. Per ml at 20 °C	g/cm ³	0.789 – 0.792	0.790
4.	Colour	Hazen	max 10	< 10
5.	Refractive Index	n _D ²⁰	1.358 – 1.363	1.360
6.	Water (H ₂ O)	wt %	max 0.2	0.0870
7.	Non-volatile matter	wt %	max 0.001	0.00076
8.	Acidity (CH ₃ COOH)	wt %	max 0.0006	0.00019
9.	Alkalinity (NH ₃)	wt %	max 0.0002	0.00012
10.	Acetone, isopropyl alcohol	—	passes test	passes test
11.	Methanol (CH ₃ OH)	wt %	max 0.1	NIL
12.	Iron (Fe)	wt %	max 0.00002	< 0.00002
13.	Lead (Pb)	wt %	max 0.00005	< 0.00005
14.	Solubility in water	—	passes test	passes test
15.	Substances darkened (by H ₂ SO ₄)	—	passes test	passes test
16.	Substances Reducing KMnO ₄	—	passes test	passes test

Result : The above product corresponds to AR Grade

Reference or standard of product specification to Analar standard and ACS specification

PT. SMART LAB INDONESIA


SUDIRO S.Si
 Head QC

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Lampiran 10. Uji Iritasi

F0-Basis	Panelis	4 jam		24 jam		48 jam		72 jam	
	Panelis 1								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 2								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 3								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 4								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 5								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0

F1-(2%)	Panelis	4 jam		24 jam		48 jam		72 jam	
	Panelis 6								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 7								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 8								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 9								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 10								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0

F2-(4%)	Panelis	4 jam		24 jam		48 jam		72 jam	
	Panelis 11								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 12								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 13								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 14								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 15								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0

F3-(6%)	Panelis	4 jam		24 jam		48 jam		72 jam	
	Panelis 16								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 17								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 18								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 19								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0
	Panelis 20								
	Skor	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	Edema: 0	Eritema: 0	edema: 0

Lampiran 11. Kode Etik



UNIVERSITAS AHMAD DAHLAN KOMITE ETIK PENELITIAN (KEP UAD)

Jl. Prof. Dr. Soepomo, S. H, Yogyakarta Telp (0274) 563515, Ekstension 3310.

Surat Persetujuan Etik (*Ethical Approval*) Untuk Penelitian yang Mengikutsertakan Manusia sebagai Subjek Penelitian

PERSETUJUAN ETIK (*ETHICAL APPROVAL*)
Nomor: 022403036

Yang bertanda tangan di bawah ini, Ketua Komite Etik Penelitian Universitas Ahmad Dahlan, setelah dilaksanakan pembahasan dan penilaian, dengan ini memutuskan protokol penelitian yang berjudul: "*Studi In Vitro Sun Protecting Factor (SPF) Serum Probiotik dan Uji Iritasi*" yang mengikutsertakan manusia sebagai subjek penelitian, yang diajukan oleh:

Ketua Peneliti: apt. Elasari Dwi Pratiwi, M.Farm_

Anggota: M. Ibadurrohman

dapat disetujui pelaksanaannya. Persetujuan ini berlaku selama 1(satu) tahun setelah *Ethical Approval* dikeluarkan.

Pada akhir penelitian, laporan pelaksanaan penelitian harus diserahkan kepada KEP UAD. Jika ada perubahan protokol dan/atau perpanjangan penelitian, harus mengajukan kembali permohonan kajian etik penelitian (amandemen protokol).

Yogyakarta, 23 Maret 2024
Komite Etik Penelitian
Universitas Ahmad Dahlan,



dr. Nurul Qomariyah, M.Med., Ed